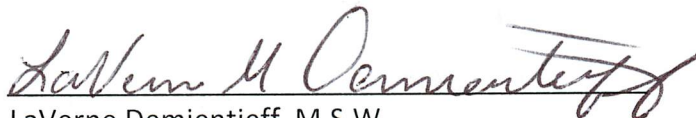


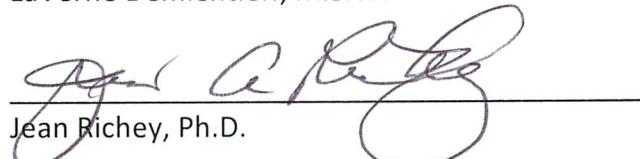
ALASKA NATIVE PERCEPTIONS OF FOOD, HEALTH, AND COMMUNITY WELL-BEING:
CHALLENGING NUTRITIONAL COLONIALISM

By

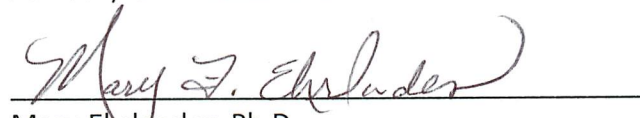
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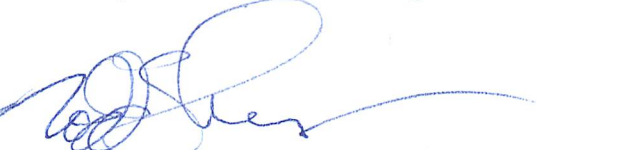

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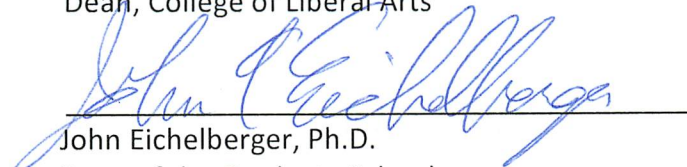

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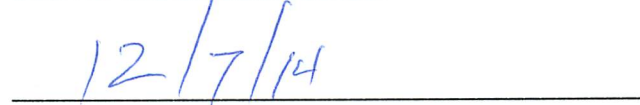

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ALASKA NATIVE PERCEPTIONS OF FOOD, HEALTH, AND COMMUNITY WELL-BEING:
CHALLENGING NUTRITIONAL COLONIALISM

A
THESIS

Presented to the Faculty
of the University of Alaska Fairbanks

in Partial Fulfillment of the Requirements
for the Degree of

MASTER OF ARTS

By

Melanie Lindholm, B.S.

Fairbanks, Alaska

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Abstract

Alaska Native populations have undergone relatively rapid changes in nearly every aspect of life over the past half century. Overall lifestyles have shifted from subsistence-based to wage-based, from traditional to Western, and from self-sustainability to reliance on Outside sources. My research investigates the effects of these changes on health and well-being. The literature appears to lack concern for and documentation of Native peoples' perceptions of the changes in food systems and effects on their communities. Additionally, there is a lack of studies specific to Alaska Native individual perceptions of health and well-being. Therefore, my research aims to help identify social patterns regarding changes in the food that individuals and communities eat and possible effects the changes have on all aspects of health; it aims to help document how Alaska Native individuals and communities are adaptive and resilient; and it aims to honor, acknowledge, and highlight the personal perspectives and lived experiences of respondents and their views regarding food, health, and community well-being.

I conducted interviews with 20 Alaska Native participants in an effort to document their perspectives regarding these changes. Many themes emerged from the data related to subsistence, dependency, and adaptation. Alaska Natives have witnessed what Western researchers call a "nutritional transition." However, Alaska Native participants in my research describe this transition as akin to cultural genocide. Cut off from traditional hunting and fishing (both geographically and economically), Alaska Natives recognize the damage to individual and community health. Studies attribute rising rates of cancer, heart disease, diabetes, obesity, and mental illness to the loss of culture attached to subsistence lifestyles and subsistence foods themselves. Alaska Natives report a decrease in cultural knowledge and traditional hunting

skills being passed to the younger generations. Concern for the future of upcoming generations is a reoccurring theme, especially in regard to dependence on market foods. When asked what changes should be made, nearly all respondents emphasized education as the key to cultural sustainability and self-sufficiency. The changes sought include means and access to hunting and fishing. This is seen as the remedy for dependence on Outside resources. From a traditional Alaska Native perspective, food security cannot be satisfied with Western industrial products.

When considering Arctic community health and cultural sustainability, food security must be considered in both Western and Indigenous Ways. Control over local availability, accessibility, quality, and cultural appropriateness is imperative to Native well-being. Many participants point to differences in Western and Native definitions of what is acceptable nourishment. Imported processed products simply cannot fully meet the needs of Native people. Reasons cited for this claim include risky reliance on a corporate food system designed for profit with its inherent lack of culturally-appropriate, nutrient-dense, locally controlled options. Respondents are concerned that junk food offers dependable, affordable, available, and accessible calories, whereas traditional foods often are not as reliably accessible. Based on these findings, I named the concept of “nutritional colonialism.”

Respondents expressed a desire to return to sustainable and self-sufficient subsistence diets with their cultural, emotional, social, spiritual, and physical benefits. Although they expressed concern regarding climate change and environmental pollutants, this did not diminish the significance of traditional foods for respondents.

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Dedicated to all
study participants/co-researchers
and
Alaska Native communities

Chapter 1 : General Introduction

I first became interested in health and food issues of Northern Indigenous peoples as a teenager. My father conducted cold weather testing during the mid 1980s in Resolute Bay (Cornwallis Island) and returned with fascinating stories about his adventures. Of particular interest to me was the diet of the Inuit people there. For instance, my father said the Inuit children of Resolute would go ice fishing in groups and would clamor to be the first to suck out the eyes of the fish as soon as it was pulled from the hole in the ice. He also told me of his experience learning about seal hunting, and I remember his coming home with what we thought was a very stinky seal skin. He arrived in the Arctic a vegetarian, but after a week found that all he wanted was meat and grease. Being young, I wondered how this could happen, what was this place like, and how exactly did these people live and survive? It seemed so different from the circumstances and place of my own upbringing, so I was fascinated with his stories and imagined them in my head. Although I maintained this curiosity, never did I think I would have the chance to formally study circumpolar cultures. As the result of a series of unplanned events, I found myself with an opportunity to attend graduate school. Another graduate student in the Northern Studies Program (who was also interested in nutrition and health) encouraged me to apply, and with the encouragement of my committee chair, I developed the research proposal that eventually became my thesis project.

I chose to focus on health and diet related issues, because of the health disparities and nutritional transition described in the literature, but what I really wanted to know was the real-life perceptions and impacts of these conditions on Indigenous people in Alaska. I sought an understanding of their history and culture, how compatible that was with prevailing Western

culture, and how the changes in diet and health affected the lived experience of individuals and communities. I chose this project over others because I believe personal and collective health are related to diet and nutrition, but that cultural identity can play a significant role in perceptions of that relationship.

In Chapter 2, I discuss and review the literature related to Indigenous health and well-being. Western assessments of health and well-being are not always accurate or compatible with Indigenous views or understanding. In Chapter 3, I discuss the methodology related to my research. I describe the Institutional Review Board (IRB) process, the interview method, the study participants, and how I analyzed the data using the grounded theory method. In Chapter 4, I discuss the findings of my research. I used direct quotations from respondents to illustrate the beliefs, perceptions, themes, and patterns that emerged from the interview data. Based on these trends, I discuss the concept of nutritional colonization and the process by which I discovered it through grounded theory method. In Chapter 5, I offer concluding thoughts related to this project. Please see the reference section for additional reading and information.

To set the foundation for all that I will discuss, I would like to use a direct quotation from one of my research participants who shared a very special, profound, and meaningful experience that represents the cultural relationships between subsistence, family, spirit, and nature:

You know, in 20 years I'll be 77 years old, so probably I won't be able to heave the boat out at 77 quite as easy as I can at 57. So, knowing that I would like to get in as much time as I can, being in the boat now, it just might not happen. Well, maybe it can. You know, my nephew, God bless him, we went out hunting and we had luck and he said,

“Auntie, you can sit in the boat if you want. I can pack this moose out. I can do the cutting and I can pack it out.” I looked at him and I said, “Son, when I’m really old-old and I can’t pack anymore, I will sit in the boat. . . [tears]. . . But for now, I’ll help you.” And he said, “Okay.” And we packed out the moose. And I said, “When I’m old-old, please let me still go out with you.” [tears] So, absolutely, there’s a real social connection that I’m so happy we have. [tears] It’s one of the better things I’m able to do. [tears] I hope we always have that connection and that food source. [tears]

In reference to this quotation, one of my committee members suggested that it also resonates a sense of belonging and purpose in life, a connection to who we are as human beings that keeps us moving forward, a yearning to be a part of a way of life that is cherished and reminds of us of ancestors, parents, childhood and what we want for the future.

Chapter 2 : Review of the Literature

2.1 Introduction

The purpose of this literature review is to summarize the food-related state of affairs both globally and locally, provide some history on those conditions, consider Indigenous views of health, and offer some of the current ideas for solutions. The focus will be on the differences between Outside interests and community-based interests related to health and culture. From a social justice perspective, this background aims to show how the idea of nutritional colonialism, which I develop in Chapter 4, ignores Indigenous perceptions and definitions of health and well-being, and promotes social inequalities. Topics of interest include cultural, economic, and ecologic effects of capitalism, globalization, and loss of land as it relates to health outcomes. Although Alaska Native peoples are primarily discussed, other Indigenous groups are also mentioned for comparison. I also consider prescriptive literature.

2.2 Indigenous Views on Health

To consider Indigenous views of health and well-being, one must consider regional and group differences as well as outside factors that influence communities. Western assessments often reflect a very narrow expression of health. Many governments fail to consider Indigenous definitions of health or risk. Because many Indigenous communities are disproportionately affected by chronic disease and poverty, it is important to consider Indigenous perceptions of health, as well as historical and economic factors. King, Smith and Gracey (2009) argue that social inequalities and health disparities result from Indigenous-specific factors related to colonization, globalization, loss of language and culture, and disconnection from the land. Therefore, self- determination and cultural participation are essential for health and well-being.

Indeed, some communities have enjoyed high levels of health and well-being by continuing transmission of cultural knowledge, traditions, and language to the next generation. However, cultural traditions must contend with economic and political realities of consumer capitalism which can negatively impact social, emotional, spiritual, and cultural well-being. Cultural changes, urbanization, and absorption into the global economy have occurred with very little respect for Indigenous autonomy. While these changes have been linked to high rates of depression, suicide, alcoholism, and violence in many communities, especially affecting youth (King et al., 2009), some Native Americans perceive poverty, disconnection from family and land, loss of identity, legacy of boarding schools, isolation, and substance abuse as the major threats to community well-being (Weaver, 2012). Correlations provide one view, but Native perceptions provide deeper meanings and insight into understanding health risks.

2.2.1 Balance and Connections

A risk-focus is not always congruent with Indigenous balance-focused views of health. For instance, in contrast to Western views associations of aging with decline and disease, Native Hawaiians view Elders as filling important and respected roles in the community, family, and culture. Health is viewed as interdependence between the individual, family, community, environment, and spirit realms; their balance is required for health and well-being (Brown et al., 2014).

Balance and harmony with humans, spirits, and land are required for good health and healing. Therefore, Indigenous views of illness often refer to an imbalance, and healing is a process involving multiple people or entities. According to Borre (1994), Inuit of Canada believe that health occurs when body and mind are nourished and at peace with the environment;

health is a feeling of warmth, the essence of well-being; health allows one to fulfil responsibilities, which in turn generates feelings of worth and control. King et al. (2009) have found that First Nations people view individual health as wellness in body, mind, and spirit; family health is viewed as mutual support; and community health is viewed as connections between past and present, committed leadership, and empowerment. In other words, First Nations tend to view connections and balance between individuals, families, and communities as essential components of well-being. For Canadian Inuit, being with family on the land and sharing food together were most closely associated with health, healing, happiness, and well-being, whereas unhappiness was most closely associated with separation from family, substance use, violence, suicide, and sexual abuse (Kral, Idlout, Minore, Dyck, & Kirmayer, 2011). Western views tend to categorize conditions individually, while Indigenous views tend to be more collective and connected.

In many Native American perspectives, physical, emotional, mental, social, and spiritual dimensions are perceived as one collective entity. Martin and Yurkovich (2014) report that these dimensions within individuals and families are considered inseparable from the community and from the land. Native Americans tend to define a healthy family as close-knit, having strong social ties with immediate and extended family members in holistic and interconnected terms; a healthy family is balanced in spiritual, emotional, physical, and social domains (Martin & Yurkovich, 2014). Stability is perceived as supporting intergenerational health by passing on healthy behaviors and cultural values to the next generation. While Western health promotion, prevention, and treatment focus on individual problems, aboriginal focus must be on family, community, place, and culture. Individual identity, self-esteem, health,

and well-being are drawn from the collective; if the collective is ignored or devalued, the individual may suffer (Kirmayer, Simpson & Cargo, 2003). Therefore, individual health is innately linked to community well-being. For example, Borre (1994) explains that Inuit health is defined as a process, and what appears to be an individual's medical problem is perceived as dependent on the community as a whole; even Outside medical healthcare that dominates the community is viewed as diminishing Inuit control of health both individually and collectively.

In addition, disruption of traditional ways of life and reduced access to subsistence resources can cause mental stress, sedentary lifestyles, and loss of connections to personal identity, cultural history, land, family, and spirit. Bersamin et al. (2014) found Yup'ik individuals who report being physically active in a subsistence lifestyle had lower levels of psychological stress; these same individuals also had more favorable indicators in Western health assessments. The researchers confirm that learning about, identifying with, and practicing one's traditional culture has positive impacts on health behaviors both individually and collectively.

2.2.2 Social Health

Links also exist between social support and health. However, we cannot assume that social supports always improve health. Social relationships can have both health-enhancing and health-damaging effects. Richmond and Ross (2008) report that these relationships can reinforce a sense of belonging, but can also exert obligations to conform that may promote damaging health behaviors such as domestic violence and smoking. They argue that negative social interactions can actually have more impact on well-being than positive social interactions; because of the loyalties one feels toward friends and family, it can be difficult to disobey the social rules of these relationships. This research suggests that poverty in some First

Nations communities adds another layer of complexity to this relationship as it can reduce autonomy of individuals to make health choices that run counter to established norms (Richmond & Ross, 2008). Therefore, social support can impact health in both positive and negative ways.

2.2.3 Healing

Although there is great diversity among Indigenous cultures and communities, some have successfully incorporated talking circles, sharing circles, healing circles, confession circles, sentencing circles, spiritual circles, rituals, use of sweat lodge, tobacco offerings, pow-wows, costumes, drumming, dancing, plant remedies, and symbolic use of the medicine wheel, to promote individual and community healing. Sometimes communal settings are used to tell stories of suffering, trauma, or loss, and can serve as validation of collective struggle. Some Inuit believe that merely talking with others is essential to well-being and that negative emotions are tied to an absence of communication (Kral et al., 2011).

Saleebey (2000) suggests that well-being is experienced as a combination of the individuals' perception of their misery, their social supports, and their strengths or assets; resilience also appears to be connected to expectation and hope. Although Indigenous people are threatened by consumer capitalism and environmental depletions, knowledge of living on the land and community connectedness provide sources for resilience and resistance (Kirmayer et al., 2003). Efforts by contemporary Indigenous people focus on tradition and healing to ameliorate the social inequalities of colonialism. This involves participation in spiritually significant subsistence activities, traditional knowledge transmission, and collective identity as ways to reconnect communities. Many view the recovery of language and culture is viewed as

essential for healing and health for both individuals and communities. Returning to the land is seen as healing due to its inherent spiritual and cooperative qualities. This world view is quite different from dominant, Western, or colonial ideologies. Often the focus is on what makes people sick rather than what makes them well, and sometimes the focus is on keeping people healthy rather than what would help the ill; neither scenario recognizes the importance of Indigenous perceptions, rights, and definitions related to health (Czyzewski, 2011). A strengths perspective aligns better with an Indigenous worldview, where the possible is considered just as much as the problem and where individuals, families, and communities benefit by relying on Indigenous wisdom, resources, and by capitalizing on what people know and can do (Saleebey, 2000). Health and healing is found in community-based wisdom.

2.2.4 Cultural Health

Because many Native tribes understand health to be connected to land, kin relationships, and identity (some also include elements of the spiritual world, animals, and ancestors), a broad and balanced conceptualization of health honors the interconnectedness of each realm when attempting to understand what it means to be well. According to Napoleon (2005) and Nelson (1983), traditional Alaska Native cultures defined the correct ways of thinking, speaking, hunting, fishing, honoring, appeasing, and maintaining respectful harmonious relationships with animals. Literally every thing and every action had spiritual meaning. The land and the environment were shared with animals, rather than exploited. There was constant interplay between spirits and animals. Elaborate rules governed peoples' behavior toward animals in order to show respect, both to avoid calamity and receive success in hunting. An animal given proper respect would give itself to the hunter again. Animals and spirits were

not symbols, but were sacred, living powers associated with strong emotions. All human health and well-being could be tied to the natural environment and could predict future health, illness or death. Additionally, Wilson (2008) argues that the land and experiences on the land shape everything for Indigenous people (literally a grounded identity); connection to land is more important than time, dates, events, ownership, or deeds.

Kawagley (2006) states that Indigenous values and worldviews allow people to be in control of their lives: cooperation and reciprocity, where all forms of life recycle, are equal, connected, and require respect and gratitude, and where all are integrated by spiritual landscapes. Just as physical health is supported by natural foods, mental health is supported by a positive attitude, meditation, and humor. He further states, “Culture is as much a state of mind, and the stories are a necessary tool for the transmission of appropriate attitudes and values of mind. Culture also gives hope to its members that the attitudes and values . . . will never be lost but will continue on, regardless of internal or external changes” (Kawagley, 2006, p. 29). These views further support the importance of considering attitudes, thoughts, and perceptions when attempting to understand concepts of culture and well-being. However, traditional values of harmony with nature, respect, and reciprocity directly conflict with the ideals of colonialism.

2.3 Colonization and Historical Trauma

Native people did not seek change away from traditional lifestyles. As Kawagley (2006) notes, their system was sustainable and self-sufficient (the opposite of Western culture). Reluctant compliance came only after devastating disease followed by mandatory school that brought an end to moving with the seasons in harmony with environment and where children

were taught another language, culture, and lifestyle that was unattainable without leaving behind who they are (Kawagley, 2006). The assimilation process altered child-rearing practices, brought shifts from nomadic to sedentary lifestyles, changed dietary orientation from natural to processed foods, altered housing, and created dependence on government institutions that control what people do. Smith (1999) argues that, by definition, negation of subsistence lifestyles is part of asserting colonial ideology, partly because subsistence is regarded as primitive, but mostly because it challenges and resists the mission of colonization. This negation can be viewed as cultural genocide.

2.3.1 Cultural Genocide

Colonialism brought industrialization, legislation, relocation, Christianization, resource extraction, assimilation and wage economy. In addition to these assaults, many Indigenous groups experienced disease epidemics and subsequent starvation. Napoleon (2005) describes one such case with Alaska Native survivors of “The Great Death” resulting in what Napoleon calls Cultural Genocide: assimilation, dependency, and the condemnation of traditional language, songs, dances, rituals, customs, and feasts; Napoleon asserts that this is the core of illnesses seen in today’s Alaska Native communities.

Alaska Natives generally experienced colonization differently from earlier Indigenous groups further south. As opposed to the outright killing and war experienced by Plains Indians, US assimilation policy via education and Christianization assumed Alaska Natives would become proper citizenry. However, Mitchell (2003) contends that Alaska Native participation in the wage economy was the primary assimilation experience. The primary purpose of the majority of Outsiders who came to Alaska was to make money. Often hired for less, Natives found

themselves working to exploit and deplete their own natural resources for the ultimate benefit of Outsiders.

Oleksa (2005) contends that assimilation was not attractive to Alaska Natives because of their affinity for their homelands and that even if they could “melt” into the dominant culture, it would mean the demise and extinction of one’s own language and culture. The results of attempted assimilation were frustration, anger, bitterness, depression, tremendous self-doubt, and guilt; assimilation “requires one to live falsely, to deny one’s own heritage and identity and to masquerade forever as something one is not” (Oleksa, 2005, p. 142). Assimilation also carries social, economic, and political penalties. Those who cannot live up to the dominant culture’s expectations are seen as incompetent, ungrateful, and stupid; when they affirm Native culture, “they are seen as dropouts from modernity. To the extent that they capitulate to the conformist pressure, they are viewed as having betrayed their own culture and people,” what Oleksa (2005) calls “an unsolvable dilemma” (p. 143). Likewise, in his book *A Yupiaq Worldview: A Pathway to Ecology and Spirit*, Kawagley (2006) claims that “progress” often means abandoning life skills based on Native ways of knowing, where Alaska Native peoples are forced to become subservient to the Western system and are confronted with new, incompatible social structures. With little recognition of Indigenous intelligence, ingenuity, and creativity, Native people are “forced to live in a constructed and psychic world not of their own making or choosing” (Kawagley, 2006, p. 2).

Many Indigenous people have a history of colonialism in which Outsiders with considerable advantage and power enacted self-serving conditions and often believed they acted in the interest of those whose way of life they destroyed. As an example, Jordan (2004)

discusses the Siberian Khanty, their land, culture, and survival after a history of intense assimilation and Russian colonization. Identifying pathways to cultural persistence became more important after oil discoveries in traditional territories inhabited by Khanty people brought destruction to land and culture. For oil companies, Native peoples were simply an inconvenience or ignored. This was the first time that such remote areas in the Khanty region were destroyed. Petroleum development threatening Khanty people has been described as ethno-genocide (Jordan, 2004).

2.3.2 Alcohol

Additionally, Mitchell (2003) argues that cultural genocide came in the form of alcohol. During Alaska's territory days, such large quantities of alcohol were reportedly traded to Natives that its influence prevented them from performing sufficient subsistence activities, resulting in starvation. The reason whalers and traders ignored the law against bartering alcohol "is that the profit from doing so was astronomical" (Mitchell, 2003, p. 158). An affinity for profit is one of the major tenets of colonialism. When Natives had access to alcohol, subsistence preparations sometimes went undone, the fishing season passed, and by winter the people faced starvation (Mitchell, 2003). In addition, Oleksa (2005) writes that mental and behavioral health deteriorated in Native communities: "as drugs and alcohol were introduced to the population, the village of Alaska erupted in an epidemic of anti-social and self-destructive behavior" and "continues to suffer from violence dealt to others and to themselves" (p. 143-144). Often mistaken for self-destruction, cultural genocide originates from Outside forces.

2.3.3 Legislation

Another form of cultural genocide has been carried out in the form of conservation legislation that has restricted Native access to their subsistence lands (Mitchell, 2003). Hunting limitations and restriction on number, species, and place significantly disrupted the Native subsistence economy. By prohibiting the sale of subsistence foods, Natives have been deprived of the income they could earn to purchase Western goods, at times effectively eliminating them from the consumer system to which they had been encouraged to convert; without economic access to Outside goods, reliance on subsistence food was necessary for survival, but ever-changing regulations resulted in Alaska Natives knowingly or unknowingly breaking the law to secure food (Mitchell, 2003). Native people were never consulted, yet bore the burden of decisions made by federal institutions, thousands of miles away, by men who knew nothing about Native ways of life. Bureaucratic and political struggles between those seeking the legal right to continued life on ancestral lands and those seeking to exploit resources for economic gain have continued. The debate heightened racial divisions. For every proposal, some thought Natives were granted too much land that Outsiders had rights to develop, whereas others thought Natives were receiving too little of what they inherently owned (Mitchell, 2003). Lobbyists, lawyers, politicians, corporations, and interested Outsiders were effectively arguing over where, when, and how Natives would live. Despite a millennia of careful stewardship, Native rights and abilities in the modern world were constantly questioned. Mitchell (2003) explains that when the Alaska Native Claims Settlement Act (ANCSA) took effect in 1971, it required Natives to organize business corporations, effectively forcing Native participation in social values *opposite* of those embodied in traditional cultures evolved from participation in

subsistence. In corporate culture, humans are shareholders, land is a transferable asset, boards of directors have responsibility to the corporation, and success becomes profit, whereas Native culture values distribution rather than retention of wealth. According to Kawagley (2006), ANCSA was cultural genocide: it forced Native people “to change from hunters and gatherers to corporate business men in a very short period of time” (p. 37) and Western development demands created an “uneasy tension between profit and preservation” (p. 70). According to Mitchell (2003), Native participation in outside systems and institutions has had “a profound effect on the evolution of traditional Native cultures, as has the intrusion of the systems and institutions themselves in village life” (p. 9) and the price Alaska Natives have paid is to be trapped “in a cycle of poverty and dependence on white institutions over which they have little control and from which there is no realistic expectation of escape” (p. 8).

2.3.4 Modern Narratives

The aforementioned forms of cultural genocide combine to cause historical trauma that influences the health of individuals and communities in modern times. Mohatt, Thompson, Thai, and Tebes (2014) discuss connections between historical trauma and present-day experiences, related to the function of public narratives and their impacts. They propose viewing trauma “as narrative – representations that contain both personal and public components – that directs our focus to the development and impact of present-day representations and their connections to the historic past” (p. 129). Historical trauma influences current behavior through one’s psychological experience of historical loss; microaggressions or daily indignities are often embedded in narratives of historical trauma so as to serve as reminders and continuations of

past oppression, and public narratives created in response to trauma influence one's sense of identity (Mohatt et al., 2014).

For Indigenous people, respectful relationships are central to healthy outcomes, whereas colonial discourse reproduces inequalities and exercises power. Czyzewski (2011) proposes that the cumulative effect of colonial policies on Indigenous communities over generations can be termed cultural genocide and that the current marginalization of Natives and normalization of social suffering contributes to its persistence. However, speaking of trauma in broad terms understates the variation of contexts and individual experiences: people do not passively receive trauma, neither does colonialism equally distribute trauma, but it generates disadvantages and unjust environments and is thus able to affect health. For instance, not allowing Indigenous people to dictate what determines or defines their health or what actions are needed to address health disparities compromises their health and well-being. Indigenous peoples' health is essential to self-determination, and vice versa, and involves control over decision-making, especially in communities that have historically lacked control over their health (Czyzewski, 2011).

Another example of modern narratives is found in a study of Canadian Inuit communities in which Kral et al. (2011) investigated well-being, happiness, and unhappiness. They found the major themes associated with well-being were connection to family, traditional culture, and communication. Generational separation, poverty, and substance abuse were viewed as negative changes, but disruption of family structure appeared to be the most harmful effect of colonialism, especially in regard to its hindrance of passing on traditional knowledge and practices. Kinship was the center of social structure prior to colonization, and despite

profound changes, family still holds a central place for Inuit well-being (Kral et al., 2001). Traditional cultural values still hold importance despite the trauma of colonialism, which indicates the continuation of incompatibilities between Indigenous and colonial ideals still represents suffering. Kirmayer et al. (2003) argue that the long history of cultural suppression, marginalization, and denial of local control experienced by Indigenous people has contributed to the high levels of mental health problems found in many communities. They emphasize that focus on overt colonial abuses can make it harder to recognize subtle or indirect health effects on individuals and communities which may divert attention from the reality of current everyday marginalization. Colonial conceptions of Indigenous health often misinterpret contemporary struggles and may even blame culture for health outcomes (Mohatt et al., 2014) which can serve to negate any sense of responsibility by the dominant society.

Both historical and contemporary events can undermine Native health and well-being in complex and multifaceted ways. Walters et al. (2011) argue that contemporary health and health risk behaviors are partly the embodiment of historical trauma. The theory of embodiment considers biological incorporation of social experiences and is expressed in population patterns of health. The concept of embodiment is also consistent with Native holistic worldviews of interconnectedness in all things. These can include microaggressions and daily discrimination, destruction of the environment, cultural and language disruption, and disconnection from family or community. Trauma can then become embodied and manifest as generationally persistent poor mental and physical health. Mohatt et al. (2014) warn that current theories of historical trauma fail to account for the effects of daily indignities and make problematic assumptions about marginalized populations. They argue that historical trauma

influences health and functions as a public narrative for particular groups or communities that connects present-day experiences and circumstances to the trauma of the past.

However, care must be taken to avoid excess blaming of external factors for Indigenous health problems. Government responsibility is rightfully questioned in efforts to manage issues such as poor housing and unemployment when Indigenous people should be supported in solutions of their own making; such solutions would produce more effective and culturally significant services (King et al., 2009). For some Native American groups, culture is viewed as an important ingredient in resolving social and health issues in contemporary environments. Likewise, some First Nations people believe they should reduce their dependency on external systems and take control of their own health and economic recovery.

2.3.5 Resilience

Despite historical trauma and ongoing marginalization, some Native people do not experience negative health outcomes. In fact, sometimes the cultural components targeted for destruction are the sites of resistance as communities celebrate the ability to survive and thrive (Walters et al., 2011). Historical trauma narratives can produce both wounding and resilience responses simultaneously. Additionally, health impacts serve both as sources of distress and resilience; devastation is often narrated alongside resistance, hope, and survival (Mohatt et al., 2014). This indicates a relationship between past and present trauma and health outcomes for individuals and communities, both negative and positive. Mohatt et al. (2014) found that a strong cultural identity is critical to individual and community well-being when responding to collective trauma. In other words, family and community narratives of resilience can provide a counterweight to oppressive dominant culture narratives. And according to Chilisa (2012),

researchers have a moral responsibility to support Indigenous peoples in their belief that their collective experiences, Indigenous knowledge, and history are valuable.

2.4 Subsistence, Economics, and Culture

As a result of colonization, economic issues related to the wage economy, poverty, and dependence have significantly influenced the health of Native communities. The introduction of the wage economy has been problematic due to its incongruence with traditional lifestyles, yet current subsistence activities require cash to obtain necessary equipment and fuel. Many individuals can neither fully engage in the traditional subsistence lifestyle nor fully engage in a modern wage-earning society (Bersamin et al., 2014). Village residents find it harder to continue subsistence lifestyles due to the time, costs, and knowledge required to hunt successfully. However, Dombrowski (2007) asserts that if subsistence hunting and fishing allows marginal members to remain in the village when the economy would otherwise force them to leave, they can continue the relationships and participate in the place where such relationships can take place. A transition away from subsistence lifestyles means a loss of culture and self-sufficiency. The transmission of healthy behaviors, cultural values, and subsistence skills to the next generation is sometimes damaged by the poor economic state of many families that requires both parents to be wage earners (Bersamin et al., 2014). In addition, when one hunting partner is forced to leave the village to seek employment, it has a ripple effect on the remaining partners left without help/equipment, affecting the whole community due to the loss of per capita funding, forcing more move-outs and threatening local business viability (Dombrowski, 2007).

Wilson (2008) argues that even when governments recognize that services are not provided on an equal basis to Native people, they are nonetheless required to meet dominant societal standards, and social problems sometimes become worse when physical conditions improve. Likewise, Napoleon (2005) cites improvements in housing, food, and clothing being simultaneously accompanied by a rise in alcohol abuse, suicide, violence, incarceration, criminal behavior, homicide, accidental death, and chronic disease. Thus mere improvement of the living standard in rural Alaska does not ensure greater well-being. It is important to note the relationship between diet and mental health, especially among Native people. Because subsistence foods are culturally significant, diet is arguably more critical for mental health among Indigenous groups. For some, mental health and healing can be positively affected by eating traditional foods, hunting, and living on the land.

Many Innu perceive the land as synonymous with health and hunting can be viewed as therapeutic (quite opposite of stressful or sedentary life). Despite hardships, the country provides physical, mental, social, cultural, and spiritual food. Hunting and eating wild foods promote healing, strength, and autonomy (Samson & Pretty, 2006). Transitions in nutrition and physical activity have had negative impacts on individual and community health, but hunting is still a viable part of economic, cultural, and social health. Often Innu maintain social and community well-being through hunting and food sharing. While most subsistence harvests are used within a family, some is used to create or maintain social relations and reciprocity allows more marginal households to remain in the village (Dombrowski, 2001), which is especially significant given that leaving a rural community essentially means leaving behind the possibility of making Native foods the primary diet and can be both emotionally and physically harmful

(Loring & Gerlach, 2009). In other words, subsistence foods provide economic and sociocultural benefits that provide “nourishment” in the broader sense (Nobmann, 1997). Many Indigenous people believe store-bought foods do not satisfy hunger and make people sick. Despite this belief, store-bought processed foods have increased in rural areas and are increasingly preferred by youth, partially as a way to show their interest in being part of the modern world even when they value traditional food and culture (Samson & Pretty, 2006). In urban areas, traditional food can be “chosen” whereas people in rural areas tend to view traditional food as inherited.

2.4.1 Roles and Identities

Unlike Western dualistic ways of thinking that set humans apart from nature, Indigenous people often have identities rooted in the natural world that surrounds them (Weaver, 2012). Subsistence is not simply food getting practices, but more importantly, it encompasses relationships generated by these practices, the emotions and feelings these relations create, and the sense of belonging central to Native identity and sense of place (Dombrowski, 2007) that are essential for mental well-being. The connections individuals feel to the people and places of their community, and the importance of their roles and responsibilities within it, play a central role in psychological and emotional well-being (Rolfe, 2006). Changing participation in traditional cultural activities correlates with increased prevalence of depression, substance abuse, and violence; the destabilizing change in gender roles (especially men’s hunting responsibilities) and changes in reciprocity relationships have left feelings of alienation, and have been correlated with alcoholism (Loring & Gerlach, 2009).

However, even when participation in traditional lifestyles is limited, the identity associated with it remains strong.

For instance, in his descriptions of reindeer herding among Sami in Russia, Vladimirova (2011) suggests that Sami are not only represented by reindeer, but are synonymous with reindeer and with expressions of positive self-esteem, identity, skill, and knowledge even if herding is not their occupation. In fact, the majority of Sami people are engaged in non-traditional employment. Vladimirova (2011) criticizes academic literature portraying Sami as having nothing else on their mind but reindeer, as if struggle for cultural survival, livelihood, spirituality, and food dependent on reindeer existed outside contemporary contexts. Although there is variation in herding styles and participation within different groups, Outside descriptions of Sami reindeer herding often place Sami into a traditional or primitive way of life. Vladimirova (2011) warns that the result can re-establish rationalized social positions that marginalize Indigenous communities. Russian assimilation policies have damaged traditional Sami culture: past Sami diets and economies depended on more than reindeer and also consisted of subsistence foods obtained by hunting, fishing, and gathering; today Sami diets are similar to other Russian populations who acquire food from stores (Vladimirova, 2011). However, as a symbol, reindeer herding can still be used as a source of pride, originality, and autonomy for Russian Sami.

2.4.2 Cultural Significance

Indigenous peoples tend to perceive traditional foods as important for identity, symbols of appreciation, and culturally valuable as well as economically and nutritionally necessary. For instance, Pars, Osler and Bjerregaard (2001) conducted health interviews with Greenlandic Inuit

regarding perceptions of their own health and living conditions as well as their opinions, preferences, consumption, and selection of both traditional and imported foods. The results indicated a high preference for traditional foods, especially among Elders, but decreasing consumption among younger generations. Reasons for not eating traditional foods more often included a desire to vary their diet and that it was expensive and difficult to obtain traditional food (Pars et al., 2001). In general, Greenland has progressive policies supporting hunting lifestyles, consumption of traditional foods, and Indigenous control of water and land. This is not the case for most Indigenous groups who find it exceedingly more difficult to pursue subsistence lifestyles. For example, contamination of traditional Swinomish seafood is a serious concern and has many impacts on health and well-being. Donatuto, Satterfield, and Gregory (2011) report that seafood represents a symbolic, deeply meaningful food source linked to multi-dimensional Swinomish concepts of health. The authors argue that food security, ceremonial use, knowledge transmission, and community cohesion play primary roles in Swinomish definitions of individual and community health and complement physical indicators of health. Swinomish traditional foods, and the acts of harvesting, preparing, storing, and consuming them are central to cultural practices and connect to education and ceremonies that play important roles in creating and maintaining a healthy community (Donatuto et al., 2011). Enduring beliefs about the qualities received by consuming traditional foods are central to cultural expression, identity and well-being, even when contamination threatens that source.

Sometimes one species represents the dominant source of food for a traditional people. For many Greenlandic people, the seal is not only culturally and socially important, but also symbolizes a link to their past; and eating seal makes people feel warm and satisfied in ways

that imported foods cannot (Pars et al., 2001). For Inuit of Canada, if the body is not well, the soul can become ill, and seal is required to maintain body, mind, and soul; many believe that health is only possible through the consumption of seal (Borre, 1994). Seal prevents illness, provides warmth, and success for the hunter. In contrast, store-bought foods do not nurture body and soul; many believe that if hunters eat only store-bought food, they cannot hunt successfully. Borre (1994) explains that seal is considered “real food” whereas industrial market foods are never considered “real food.” Therefore, the health and well-being of individuals is inherently tied to the ability of the community to provide seal. Inuit do not recognize a division between production and consumption, meaning that market foods cannot maintain health because they are not produced through hunting and sharing (Borre, 1994). As another example, the remote Siberian forests are economic, cultural, and spiritual spaces for Khanty people where spirits “give” animals to hunters in exchange for respectful treatment and offerings that ensured general health, welfare, and luck in hunting. Land is not just an economic resource, but is perceived as fundamental to spiritual and cultural health and survival; everyday landscape relationships are inhabited, not just on land, but *in* land (Jordan, 2004). Therefore, maintaining health and traditions involves maintaining rights to land.

Inaccessibility of land does not reduce the importance of traditional foods. In fact, Dombrowski (2007) states that a decrease in subsistence foods does not diminish their significance, but actually increases their ideological power. Because subsistence foods are seen as icons of Native ways, threats to food can be seen as threats to the community; subsistence not only symbolizes community, but also its possible dissolution. Participation in Western

lifestyles usually means less participation in traditional Native lifestyles, although some have managed a balance of both.

2.5 The Omega-3 Factor

Country foods supplied all the nutrients to ensure health for thousands of years, suggesting hunter-gatherer diets are the oldest and best suited for human physiology. Indeed, hunted and gathered foods are very different in nutrient content and density than store-bought foods (Samson & Pretty, 2006). While consuming country foods, Northern Indigenous peoples had relatively low incidence of obesity, diabetes, cancer, and cardiovascular disease – the opposite trend we see today – partly due to the omega-3, antioxidant, and physical activity levels associated with traditional foods. The shift from hunting and fishing to industrial market foods is an important risk factor linked to deteriorating physical and mental health of circumpolar peoples.

Subsistence foods offer protective factors that are simply not found in typical Western diets. Native marine-based diets are most notable for their omega-3 qualities. Fatty acids, including omega-3s, are termed essential, as the body does not produce them and they must be obtained through diet. When considering nutrients important to human health, marine-based diets are best known for their extraordinary omega-3 benefits associated with decreased risk for cancer, heart disease, and diabetes. Until Western diets were introduced, Indigenous populations with marine-based diets were arguably among the healthiest in the world (Nobmann, Byers, Lanier, Hankin, & Jackson, 1992).

2.5.1 Cardiovascular Health

Some studies have shown that diets emphasizing traditional Alaska Native foods are associated with a fatty acid profile promoting greater cardiovascular health than diets emphasizing Western foods (Bersamin, Luick, King, Stern, & Zidenberg-Cherr, 2008) and the lowest levels of ischemic heart diseases occurred in Alaska Natives with high blood concentrations of omega-3s who lived in areas with documented patterns of high salmon consumption (Davidson, Bulkow, & Gellin, 1993). With heart disease currently the leading cause of death among both Native and non-Native populations (Kochanek, Murphy, Minino, & Hsiang-Ching, 2011; Statistics, 2011), diet recommendations for promoting heart health increasingly suggest boosting omega-3 consumption.

2.5.2 Cancer

Studies have now shown significant advantages of omega-3s in decreasing many forms of cancer. The decreased risk of cancer is an important advantage for circumpolar peoples, considering cancer is the second leading cause of death in the United States (Kochanek et al., 2011). A diet rich in omega-3s from traditional Native diets offers a viable option to aid in protection from cancer risks.

2.5.3 Diabetes

Omega-3s are also associated with a decreased risk for diabetes (Pilon et al., 2011). Consumption of seal oil and salmon, high in omega-3s, appears to lower the risk of glucose intolerance and diabetes (Adler, Boyko, Schraer, & Murphy, 1994). However, typical Western diets simply do not contain omega-3 quantities essential for health. For instance, four ounces of

salmon usually contains at least 2 grams of omega-3 fats – more than the average U.S. adult derives from all food over the course of a week (Papanikolaou, Brooks, Reider, & Fulgoni, 2014).

2.5.4 Mental Health

In addition to physical health, depression and mental health issues plague some Native communities; one indicator points to Alaska's suicide rate, which is by far the highest in the nation (Statistics, 2011). Some researchers note that the increasing prevalence of depression over the last century is proportionate to changes in fatty acid intakes, particularly to a significant reduction in omega-3 intakes (Richardson, 2003). This suggests that part of the causes of depression may be changes in diet. High fish consumption is associated with lower annual prevalence of major depression (Hibbeln, 1998) and the risk of being depressed is significantly lower among frequent fish consumers compared with less frequent consumers (Tanskanen et al., 2001). Given the omega-3 content of Native foods, traditional diets offer a possible remedy for the high levels of depression and mood disorders seen among some Indigenous communities. Overall, because of their nutrient density, traditional foods are associated with better health outcomes (Johnson, Nobmann, & Asay, 2012). However, in addition to their being less accessible for many Alaska Natives today, subsistence foods and their omega-3 advantages are being threatened by climate change and environmental pollution.

2.6 Global Environmental Change

Climate change has interfered with Native communities' ability to obtain local foods. Economic change combined with environmental change has created more reliance on industrial

foods, which have negatively impacted individual and community health (Loring & Gerlach, 2009). Knowledge of and adaptation to climate changes are not only critical to physical and biological needs, but also to “feed our souls,” writes Krupnik & Jolly (2002, p. 189). Thus changes in climate have influence on individual and community well-being economically, physically, and emotionally.

2.6.1 Unpredictability

Unpredictable climate change limits access to fish and game because policies and management cannot respond as fast as the hunter or fisher needs in order to accommodate the environmental change. Often subsistence-dependent individuals must break the law in order to survive (Dombrowski, 2007). The Department of Fish and Game regulates times and locations for hunting and fishing that are not always opportune times and places for success. Laws and regulations also serve to isolate people from nature. Traditional hunting is not only tied to physical places, but also to the emotions and cultural significance they provide. Krupnik and Jolly (2002) explain, “Restrictions or loss of hunting can create deep resentments, anger, and depression for some hunters – they are hunters and need to hunt in order to fulfill something deep inside themselves” (p. 44). This loss is further exacerbated by increased dependence on costly and inconsistent delivery of industrial foods from the Outside. When needs cannot be met by local food sources, village residents are forced to buy store food patterned in line with other Americans living near the poverty line, except Native communities are additionally limited by unreliable shipments (Loring & Gerlach, 2009).

2.6.2 Observations and Health Consequences

Among the relatively recent changes Alaska Natives have experienced, climate change is one aspect important to examine in relationship to health. In *The Earth is Faster Now: Indigenous Observations of Arctic Environmental Changes*, Krupnik and Jolly (2002) indicate that, “In the holistic Inuit vision of health, the well-being of individuals and communities is tied to the land and sea . . . The social, cultural, and physical importance of country foods . . . makes the identification of potential threats to food security paramount” (p. 285-286). Changes in vegetation, length of seasons, snow consistency, ice thickness, wind patterns, rainfall, length of storm build up, and temperature have affected hunting practices. Certain animals cannot be caught in areas they once were. Hunting techniques no longer work in areas they once did. Migratory patterns, health, and animal population levels have changed. These changes are reported “to directly influence people’s diets in terms of suitability for consumption, availability, and accessibility” (Krupnik & Jolly, 2002, p. 284).

Climate change has also caused loss of permafrost which renders some traditional ways of storing food impossible. Warming causes bacteria and illness, which can result in death. Native communities experience an increased risk of infectious diseases due to changes in range and activity of vectors and infective parasites, as well as the emergence of new diseases due to changes in local ecology of water-borne and food-borne infective agents (Krupnik & Jolly, 2002, p. 289). Changes in permafrost distribution and composition have also caused psychosocial disruption related to damages to infrastructures and population displacement.

Changes in the land and climate directly impact emotional health and well-being. Participants in Nunatsiavut expressed that observed or perceived changes in snow, ice,

weather, and land have emotional consequences such as feelings of uncertainty, frustration, sadness, anger, fear, anxiety, depression, and have impacts to health, culture, and identity (Wilcox et al., 2013). Emotional health is an essential component of resilience, adaptation, and strength. Although environmental changes raise concerns, they also provide opportunities for community cohesiveness, support, and hope. Inuit people report feeling more healthy and well when spending time outdoors and being connected to the land; they describe this connection as deep and something beyond the human realm, as well as healing (Wilcox et al. 2013). For hunters, not being able to go out on the land feels like a handicap and a loss of worth and value that comes from hunting and fishing. Without this land-based self-worth, many people are concerned for the emotional health and well-being of the community. Krupnik and Jolly (2002) write that Native communities often send a:

message of confidence and endurance, based upon the legacy of survival in the ever-changing arctic environment and upon decades of personal experience by the elderly experts . . . This motif of endurance (resilience), however, is often accompanied by the message of grave concern, as northern residents watch rapid shifts in their environment and struggle with explanations. (p. 188-189)

Uncertainty regarding accessibility and availability of subsistence foods inherently carries a level of stress, even among the most skilled. Some communities have developed various adaptations and coping strategies to respond to the changes, but they often entail traveling further or more often, requiring more time and money (Krupnik & Jolly, 2002, p. 323). In other words, people:

may have to spend more time away from their community and families, and may not return with enough meat to share with elders. This affects individual health (danger in travelling, less country food in diet), sense of community (residents have to spend more time away from community), and economic well-being (residents spend more on fuel to travel greater distances). (Krupnik & Jolly, 2002, p. 328)

Consequently, residents without the resources to adapt will hunt less, store less for winter, and depend more on industrial market foods with less nutritional and cultural significance. Although Northern peoples have a history of adaptation, the current climate changes are demanding the need to learn rapidly while unpredictability interferes with that ability: “The impacts of environmental change are stripping arctic residents of their considerable knowledge, predictive ability, and self-confidence in making a living from their resources. This may ultimately leave them as strangers on their own land” (Krupnik & Jolly, 2002, p. 339).

2.6.3 Contamination

As if climate change were not challenging enough, Northern Indigenous peoples are now faced with industrial contaminants in their traditional foods. Individuals and communities must now weigh the multiple nutritional and socioeconomic benefits of traditional food against the risk of contaminants in culturally important food resources (Kuhnlein & Chan, 2000).

Contamination further compromises communities already strained by the decline of subsistence networks. Cultural losses are often more important than the material loss itself because damage to natural resources affects intangible values and meanings of health (Donatuto et al., 2011). However, despite increased environmental pollutants, many Indigenous people continue to eat traditional foods because they believe the nutritional and cultural value

outweighs the risk of contamination. Climate change and industrial pollution are both partially byproducts of the relatively recent changes in the commercial, corporate, capitalist food system.

2.7 Capitalism and the Global Food System

Several authors and researchers have criticized capitalism, not only because of its negation of Indigenous lifeways, but because it fosters social inequalities. All capitalist societies have significant levels of economic inequalities, but in the US, inequality is extreme. Among the developed nations, the US has the highest rate of economic inequality and the highest poverty rates (Wright & Rogers, 2011, p.22). Capitalism is often synonymous with consumerism. To explain consumerism ideology, Wright and Rogers (2011) write, "Consumerism is the belief that personal well-being and happiness depend largely on the level of personal consumption, particularly in the purchase of material goods. The idea is not simply that well-being depends on a standard of living above some threshold, but that consumption and material possessions are at the center of happiness. A consumerist society is one in which people devote a great deal of time, energy, resources, and thought to consuming. People in a consumerist society generally believe that consumption is good--and more consumption is even better. The United States is an example of a hyperconsumerist society" (p. 103). As one example of the incompatibilities with Indigenous cultures, Schwalbe (2008) explains that "Capitalism tends towards ecological suicide. This is because capitalism forces capitalists to keep expanding, to keep using more and more resources--and this can't go on forever in a world of finite resources... Because capitalists focus on short-term profits, long-term environmental damage is ignored and the costs shifted to communities" (p. 273). Considering that Indigenous cultures

value and respect the environment that sustained their ancestors to which future generations are entitled, that they consider all areas of health to be interconnected and community-based, they often encounter incongruences with the capitalistic ideology affecting the current consumeristic food system.

Changes in food systems at all stages (from production to consumption) can either undermine or support physical, mental, and cultural health. Traditional foodways contribute to one's responsibility in the community, strengthen social networks, and support connections to land essential for well-being. However, as traditional subsistence areas are cut off and roles change, the culture destabilizes, and food uncertainty impacts all levels of health.

Anthropologists Loring and Gerlach (2009) suggest that food security depends not only on food being physically and economically accessible, but available nutrients must also meet dietary needs and cultural preferences. This means that store-bought products offer questionable levels of support. Degradation of ecosystems and communities reduces local control of quality and appropriateness of food. The resulting decrease in self-reliance means an increased dependence on the global food industry and being vulnerable to variations in price, availability, and quality. Commercial foods eliminate traditional roles in the food chain that are fundamental to health, and access becomes dependent on one's ability to pay (Loring & Gerlach, 2009). If forced to depend solely on store-bought food, many could not buy sufficient nutrition (Borre, 1991). Thus, not only is the current capitalist food system incongruent with Indigenous subsistence systems economically and culturally, but it also creates dependency on an Outside system that offers suboptimal nutrition because it is profit-based instead of health-based.

London School of Economics-educated Raj Patel (2012) argues that the global industrial food system's goal is intentionally programmed dependence. There is lack of choice and power over all aspects of local production and ownership. Recent food history and politics has created a system strongly driven by the profit motive, suited for corporate gains, not for human health and well-being. Sumner (2011) agrees that corporations have no responsibility to protect public health and that this concentration on profit violates public interest by leaving too many consumers hungry, malnourished, or obese. The current system tends to exploit and oppress anything inside the system and restricts access to anything outside the system. Reliance on market-based food systems reduces participation in local food systems due to increased Outside political influence that has also led to environmental damage, loss of traditional foods, and increased disease rates. Anything corporations do that appears to be done in the name of public interest is suspect. Good works done in the name of social responsibility are always constrained by profitability (Patel, 2012).

2.7.1 Lack of Food Sovereignty

As people are increasingly disconnected from the sources and production of their own food, a corresponding increase of diet-related illnesses affects communities. In an analysis of American diet changes over the past 70 years, Schlosser (2002) uncovers the political and economic factors that influenced the relatively rapid change from locally-produced to industrially mass-produced foods. This change left in its wake depleted farmland, the near eradication of the small farmer, increasing debt and inequities, and poor health outcomes worldwide. Forced to participate in the wage economy, relying on corporate controlled food sources, lured by convenience and marketing, more and more people have forgotten how to

produce and cook their own food independent of the current system. They no longer know where their food comes from, how it is made, who makes it, how it is processed, who processes it, how it is transported, who transports it, how it is cooked, who cooks it, or who profits at each stage along the way. Today, fewer people understand how their food was made, fewer question or care, and fewer have the knowledge or skills to effectively exit the corporate-dominated food system. This minimizes local control and keeps corporations in power. Bolstered by government legislation, corporate profit continues to be of top priority. Anything that threatens corporate profitability is quickly eliminated, with little to no respect for public health or environmental conditions. Corporations' profit-first focus cannot and will not address community needs where there is no dollar to be made. Therefore, food sovereignty cannot and will not be achieved if communities rely on the current corporate-owned system.

Patel (2012) suggests that food sovereignty implies a diversity of solutions including policies and ways of eating that are sensitive to history, ecology, culture, and human rights. His model of food sovereignty also demands asking questions such as who owns the land, how are workers treated, how much fossil fuel was used, was it genetically or chemically altered, and who has the ability to access it? Food sovereignty means communities define food policy and retain rights to production. Food sovereignty means the consumer decides what to eat, and how and by whom it is produced. In this respect, community food sovereignty threatens corporate profit, power, and control. In the current system, this also means that government policies cannot be expected to support food sovereignty. Corporate agendas do not include asking for or considering individual or community needs, perspectives, or definitions of health.

In fact, around the world, resources from which corporations reap their profits are often illegitimately owned – land stolen under colonialism (Patel, 2012).

2.7.2 Perceptions

Because all Native cultures include traditional food harvest, preparation, and communal consumption as critical cultural components, the loss of any traditional food creates a sense of loss of a magnitude that is difficult for Outsiders to understand. Indigenous individuals often express a preference for country foods when diet is discussed, in part because Native people view subsistence to be more than just food. In a final report on traditional diets, using surveys conducted by the Alaska Native Epidemiology Center and The Institute for Circumpolar Health Studies, respondents provided reasons for eating traditional food that included: (a) the belief that subsistence foods are healthier and more nutritious than store-bought foods, (b) preferring the taste of subsistence foods, (c) subsistence foods are less expensive than store foods, and (d) most importantly, the cultural significance of subsistence foods (Ballew et al., 2004). In addition, some Indigenous individuals view the lack of culturally significant foods as a liability for the community. In a recent study of Native American families, respondents identified the number of fast food restaurants, poor food quality, and high cost of fresh produce were indicated as community liabilities (Martin & Yurkovich, 2014). Likewise, a recent study of Native Hawaiian Elders showed that eating healthy was equated with eating culturally-significant spiritually-connected foods, and some respondents related poor diets to the effects of colonization (Brown et al., 2014). In a study of health risks and impacts among Swinomish people, participants identified possible reasons for deterioration of community cohesions which included assimilation into the capitalist workforce, lack of access and time due to

participation in wage economy, and being forced to purchase substitute food they considered unsafe due to unknown origins or preparation methods (Donatuto et al., 2011).

2.7.3 Transitions

Historically, Northern Indigenous populations have relied on marine food sources such as whale, seal, walrus, and fish. The health benefits from marine-based diets include reduced risk for heart disease, diabetes, cancer, and stroke. Circumpolar cultures were forged in places where scarcity of food was common and body fat desirable, but modern foods and lifestyles now sabotage biological tendencies. In addition, many Alaska Native cultures also consider food selection to be a personal choice dependent on the individual's needs and rhythms that dictate when and what to eat. Because telling another person when or what to eat is culturally inappropriate, parents are finding it difficult to restrain their children's candy and soda intake (Searles, 2002). Commercial food corporations market their products to be appealing, to increase their profits, and to maintain consumer dependency. Patel (2012) urges taxing food products to reflect the full cost of the food system's environmental and public health costs in the price of its output. This is quite opposite of the current policy of government-subsidized processed foods associated with the chronic disease epidemic.

While Patel (2012) encourages people to eat locally and seasonally, and support locally-owned business, he also acknowledges the need to empower society's poorest members to be able to afford to eat differently. He advocates for living wages and worker rights to dignity in combination with providing restitution for the injustices of colonialism. Sumner (2011) advocates for a sustainable and socially just food system where value is placed on nutrition and local resources that are shared. Such proposals clearly challenge the current capitalist

corporate-owned global food system based on the profit motive. Not only has the transition to commercially processed foods contributed to loss of identity and expression of ethnic pride, self-sufficiency, recognition of skill and ability to provide for one's community associated with subsistence lifestyles, but Western substitutions contain fewer essential nutrients, require cash, contribute to sedentary lifestyles, and are culturally insignificant (Loring & Gerlach, 2009).

2.8 Health Outcomes in Alaska

A decrease in subsistence activities (hunting, fishing, processing) correlates with a decrease in physical activity, as well as a decrease in traditional food consumption. Jorgensen and Young (2008) recognize this nutritional transition as having considerable influence on the prevalence and incidence of obesity, diabetes, cardiovascular disease, cancer, and their risk factors. Arctic people who evolved to survive by storing fat are no longer threatened by starvation; current overeating and inactivity may combine with this tendency to store fat and contribute to high rates of obesity and diabetes. Before exposure to Western influence, Alaska Natives were thought to have very low rates of chronic disease due to marine foods' high omega-3 and selenium content, with accompanying physical activity required for subsistence activities. For instance, marine-based fats counteract cardiovascular disease, whereas market-based fats contribute to cardiovascular disease (Bjerregaard & Jorgensen, 2008). Likewise, traditional diets high in fatty acids and traditional long breastfeeding practices are thought to have protected against breast cancer, but since lifestyles and diets have Westernized, breast cancer rates have increased (Friborg & Hassler, 2008). Compounding the threat to health, cancer requires sophisticated equipment to diagnose and treat which is often unavailable in

remote locations, meaning Natives are diagnosed at later stages of disease and have lower rates of survival.

Increased reliance on store-bought food and an increasingly sedentary lifestyle have played major roles in the emergence of chronic diseases such as obesity, diabetes, heart disease, and dental decay (Young & Bjerregaard, 2008). For instance, when compared to national averages, dramatic health disparities and disease risks exist among Alaska Natives due to obesity, including increased rates of diabetes, cardiovascular disease, and hypertension (Jernigan, Duran, Ahn & Winkleby, 2010; Redwood et al., 2010). These illnesses have increased with nutritional transitions from traditional (subsistence) foods to Western (market) foods. When subsistence foods are lost, and low-cost but high-energy market foods are substituted, the basis for developing obesity and diabetes exists (Kuhnlein, Receveur, Soueida, & Egeland, 2004).

Acton et al. (2002) report that the most alarming increases are seen in Alaska Native youth, with diabetes prevalence rates two times the increase among all Alaska Natives, and may signal the acceleration of a diabetes epidemic in this population. This increase poses a major public health challenge for affected communities because young persons with diabetes will have more years of disease burden and a higher probability of developing costly and disabling diabetes-related complications earlier in life (Acton et al., 2002). Diabetes prevalence rates are especially significant because diabetes is also a risk factor for developing cancer. Alaska Native people have among the highest incidence and mortality rates for all cancers (DHSS, 2002).

While there is evidence of a steadily increasing prevalence of diabetes among Alaska Natives, these rates appear to decline following nutritional education intervention (Naylor et al., 2003). Therefore, emphasis on culturally appropriate nutrition education programs promises a viable option in the prevention of diabetes among circumpolar populations by encouraging the use of traditional food sources in their diets. Increasing subsistence activities not only provides healthier diets and physical exercise, but also provides connection to culture and social relationships crucial for community health.

2.8.1 Liabilities

Diet transitions are also congruent with substance use increases in Native populations, further deteriorating health outcomes. This is especially true of smoking. The Alaska Department of Health and Human Services reports:

Tobacco use is responsible for approximately 1 in 5 deaths of all Alaskans and is the single most preventable cause of death and disease. Alaska Natives suffer 23.2% of smoking-related deaths, although they comprise only 16.5% of the state's population. This disproportionate rate of smoking-related deaths is due to extremely high rates of tobacco use in the Alaska Native population. The highest smoking rate is consistently found in the rural regions. (DHSS, 2002)

Additionally, alcohol mortality rates are much higher among Alaska Natives. Alaska has the highest rate of alcohol dependence (more than twice the national average); Alaska has the highest alcohol consumption rate in US; 80% of all substantiated child abuse cases are alcohol and/or drug related; 51% of Alaskans with a lifetime mental disorder also have a substance abuse disorder; Alaska has the highest rate of fetal alcohol syndrome in US; and substance

abuse is associated with motor vehicle fatalities, firearm-related deaths, drowning, child maltreatment, assault, partner abuse, homicide, suicide, and rape (DHSS, 2002).

Violence is a serious threat to health and well-being for Alaska communities. Alaska's rape rate is 2.5 times the national average; child sexual assault in Alaska is nearly 6 times the national average; Alaska has the highest rate per capita of men murdering women; and the suicide mortality rates for Alaska Natives are two or three times higher than state and national rates (DHSS, 2002).

Yet for some Alaska Natives, the statistics do not adequately express the physical, emotional, and social suffering experienced by their communities. As Harold Napoleon (2005) explains: "The numbers are misleading because they do not measure the true extent of the damage being done to the Native people. The numbers cannot quantify the heartbreak, discouragement, confusion, hopelessness, and grief. The numbers cannot measure the trauma" (p. 22). Clearly, there is a great need to implement culturally-appropriate interventions and support for Alaska Natives to encourage healing and health.

2.9 Prescriptive Literature

Health problems including obesity, heart disease, substance abuse, and diabetes brought on through recent dietary and lifestyle changes are closely related and interconnected. However, most intervention efforts have been focused on one area of concern and have rarely taken into consideration the whole picture. Samson and Pretty (2006) argue that part of the problem is that money invested in treatments for Native health are largely Western-based treatment models, deal only with individual symptoms rather than the larger cultural and community contexts, and lack emphasis on prevention. Recent studies confirm the importance

and success of multi-faceted, comprehensive, community-based, culturally-appropriate interventions efforts. Some advocate for an integrative health approach that begins with the assumption that health involves complex feedbacks and interactions between the individual, the household, and the community, with outcomes mediated by biophysical, psychological, social, cultural, and economic circumstances (Loring & Gerlach, 2009). Others propose a biopsychosocial model which assumes that biological, psychological, and social factors contribute interrelated roles in human health and functioning (Engel, 1977). Both rest on the belief that health is best understood in terms of a combination of biological, psychological, and social factors rather than purely in biomedical terms (Santrock, 2007).

Samson and Pretty (2006) suggest that the cost of treatment for health problems due to diet and lifestyle changes far exceeds the cost of restoring subsistence-based activities. Given the impediments to resuming traditional activities, comprehensive interventions must involve multiple levels of change. Because there are now few places available to pursue traditional lifeways, some suggest community-based land ownership to provide effectively for Indigenous health, education, economy, culture, and resource needs (Jordan, 2004). Given that help from the Outside generally creates more dependency, the focus must be directed towards increasing self-reliance within Native communities. Johnson et al. (2012) recommended that the focus of interventions be based on input from community members. Mohatt et al. (2007) recommend relying on intrinsic strengths of Indigenous worldviews and practices to contribute to positive transformations in community health.

Some researchers propose program designs that incorporate community perspectives and interests. For example, The Center for Alaska Native Health Research (CANHR) is a

community-based participatory research center at the University of Alaska Fairbanks that has designed a project aimed at understanding current risk factors for obesity, diabetes, and cardiovascular disease in Alaska Natives living in Southwest Alaska. The research team uses a multidisciplinary approach that includes assessments of genetic, nutritional, and behavioral risk factors and their interrelationships with one another in the overall development of disease. The design of the CANHR project involves community participation in the development, implementation, and interpretation of research results. Researchers developed a participatory research program designed to be culturally appropriate, relevant to community needs and interests, and respectful to their participants (Boyer et al., 2005).

Fialkowski, Okoror, and Boushey (2012) also studied the relevancy of community-based methods using diet within Alaska Native populations. They provided a framework for applying community-based participatory research to a population known to experience health disparities, provided an outline to guide the design and implementation of nutrition programs among Alaska Native populations, and emphasized that reversal of health disparities within disadvantaged groups requires community involvement. The point is advocating for diet research with consideration for historical, social, cultural, psychological, and economic trauma; when disparities are viewed outside this context, there is potential for problems to be misunderstood and perpetuated instead of resolved. Fialkowski et al. (2012) acknowledge that establishing and maintaining trust (the foundation of community-based participatory research) requires significant time and effort, and that developing program objectives can be complicated by ethnic, cultural, social and organizational differences within partnerships.

Lardon, Soule, Kernak, and Lupie (2011) describe considerations for local traditions when planning and organizing the development of health promotion programs: empowerment and contextual influences must be emphasized to allow for a more holistic conceptualization of health and to identify approaches to health anchored in principles of community development and systems change. In their case, the goal was to improve nutrition, increase exercise, and decrease stress. The village-based team leaders partnered with the university-based researchers to develop a model for initiating and leading change that is congruent with local culture (Lardon et al., 2011). Part of strategic planning includes utilizing and promoting local expertise, and integrating local traditions of Native culture into the goals, objectives, actions and evaluation plans. Lardon et al. (2011) indicate program challenges in understanding two cultural perspectives simultaneously, specifically the need to adapt the ideas of strategic planning to a culture in which Western-style planning does not come naturally. However, the most important accomplishments of their project included laying the foundation for future community-initiated projects; in other words, lessons drawn from the collaboration process were the most valuable outcomes.

Because many Indigenous individuals and groups consider aspects of psychological, social, cultural, and spiritual health equally important and fundamentally linked with physical health (Donatuto et al., 2011), they have little success with treatments that do not value their ways of knowing pertaining to health, which could partially account for high burdens of illness (King et al., 2009). Ruthig, Hanson, Ludtke, and McDonald (2009) found that health behaviors involving diet and exercise to be better indicators of self-rated health than any other factors. They suggest that because these behaviors are alterable, they can be targeted to improve self-

rated health among Native people, which could mean better quality of life. Future work should also seek to integrate Alaska Native preferences, values, and culture into Western forms of health treatment, as well as identifying ways to culturally integrate Western forms of health interventions into Alaska Native ways of healing (Stewart, Swift, Freitas-Murrell & Whipple, 2014). Indeed, Weaver (2012) suggests that assessments allow for subjective perceptions of cultural connections and allow for an identity with more than one culture, as bicultural competence is associated with least hopelessness.

Care must be taken to listen to Native people. Oleksa (2005) warns that governments and Outside professionals may provide services, but the more external, non-reciprocal help that is imported, the more dependent, depressed, confused, and frustrated the population becomes:

The more others try to help, the worse the problems get . . . No temporary hired professional can really change the dynamics of the dependence cycle. No one from outside the community can transform it, make it a better, happier, healthier place . . . Only its residents and citizens can change the situation, and no one else . . . A reawakening, a revitalization of the traditional culture, the Way of the Human Being, lies at the foundation of a new chapter that is beginning to emerge in many regions. Young people are reaffirming their belief in themselves, in their community, in their people, and rejecting the false dichotomies that have created the old either/or dilemma. They are embracing both identities and claim both as legitimately their own. We can be who we are, and we can live successfully in the modern world. We can do both. We *must* do both. That is how we become Real People. We adapt. We change, but

we also hold on to all that is good, true and beautiful in our story, in our way of life, in our culture. (p. 144-145)

To improve health and well-being, community-based, culturally-tailored, age-appropriate nutrition education in schools, workplaces, community centers, and healthcare centers should be used in rural or urban settings, provided it is tailored to individual and place-based needs. Individual, social, physical environmental and socio-economic factors interact in complex and changing ways to influence food choice; different levels of influence should be examined to determine interaction modifications (Willows, 2005). Consideration for the above factors must be made if Alaska Natives are to improve all levels of health. Chilisa (2012) suggests a process that would document the state and magnitude of poor health along with positive images of health that demonstrate hope, possibilities, and desire to change health. In the wake of historical trauma, individual and community well-being can be reconstructed with a strong cultural identity, narratives of family and collective resilience, action, and aspiration, as devastation and loss are often described alongside narratives of resistance, survival, and hope (Mohatt et al., 2014). Mitchell (2003) suggests writing realistically about current conditions and not ignoring what Natives are doing and saying. Additionally, Martin and Yurkovich (2014) cite oral tradition as an underutilized strategy for communicating knowledge about health and prevention that could help reduce health disparities. Here is where we find the gap.

2.10 Gap in the Literature

The gap in the literature, in part, appears to be concern for and documentation of Native peoples' perceptions of the changes in food systems and their effects on communities. Additionally, the literature lacks studies specific to Alaska Native individual perceptions of

health and well-being. Therefore, my research aims to help identify patterns about food changes and possible effects the changes have on all aspects of health by focusing on personal perspectives regarding food, health, and community well-being. My work draws on the concept of nutritional colonization as a framework, which I present in Chapter Four.

Chapter 3 : Methodology

3.1 Introduction

The literature lacks research conducted specifically regarding Alaska Natives' perceptions of health and well-being related to nutrition. I proposed the following research question to help fill the gap in the current literature: What are Alaska Native perceptions of community well-being and dietary health? Following the IRB approval process, I conducted interviews with Alaska Native participants, which I recorded and transcribed. Using data analysis software, I conducted open coding of the data, followed by examination of the data for patterns, themes, and concepts.

3.2 IRB Process

To ensure ethical research practices for all studies involving human subjects, the University of Alaska Fairbanks requires approval from its Institutional Review Board (IRB). With assistance from my committee chair, I supplied the appropriate information required to complete the IRB Research Protocol Application and submitted it along with the IRB Research Personnel List. I included copies of my IRB Informed Consent Form (Appendix A), Flier (Appendix B), and Interview Questions and Format (Appendix C). I made adjustments and revisions as needed until I received my IRB Approval Letter (Appendix D). The IRB process took ten weeks for completion.

3.3 Researching Appropriately

In accordance with guidelines provided by Lincoln and Denzin (1998), this project operated with the understanding that “no picture can be considered final when the perspectives and narratives

of so many are missing, distorted, or subordinated to self-serving dominant majority interests” (p. 419-420). Like other Indigenous groups, Alaska Natives have been subject to research misconduct for generations. Therefore, they often express distrust of researchers. With this history in mind, I approached this research with the foundation that it should be culturally informed, collaborative, and meaningful. I worked hard to avoid placing value judgments on people’s experiences. I sought collaboration in offering another avenue for expressing and documenting their beliefs and perceptions. According to Chilisa (2012), all research should be conducted so that benefits accrue to both the communities researched and the researcher -- a process she calls reciprocal appropriation. She suggests that research move from a deficit-based orientation to reinforcing practices that have sustained the lives of Native peoples. In other words, she recommends shifting from “an analysis of how bad things are” to using “heritage and diverse knowledges to create new social, cultural, economic, and educational programs informed by [Indigenous] ways of knowing and perceiving reality” (p. 23). However, to do this, “People must study the past to recover their history, culture, and language to enable a reconstruction of what was lost that is useful to inform the present” (p. 19), such as “a worldview that recognizes the interconnectedness and interdependence of all things” (p. 182). This accounting of relationships is important to Native culture where all things are inherently connected. This project aims to contribute another important part of this connection.

3.4 General Objective

The following research question guided this project: “What are Alaska Native perceptions of community well-being and dietary health?” I employed interview techniques to

obtain data to discover patterns, themes, and concepts related to Alaska Native culture, health, and food.

3.5 Description of the Data

The primary sources of data were interview transcriptions. I chose the interview method over other methods because it is one of the best ways to obtain culturally rich and culturally relevant data (Chilisa, 2012). Interviewing is particularly useful when researchers are “interested in understanding the perceptions of participants or learning how participants come to attach certain meanings to phenomena or events” (Berg & Lune, 2012, p. 115). For this project, I was interested in both the perceptions and the cultural significance of food. My respondents provided this data in the form of interviews that I later transcribed and analyzed.

3.6 Description of Interview Method

When drafting interview questions, researchers should “take particular care to ask open-ended questions and avoid terms that may smack of prejudice or preconceived ideas,” explains Bryson and McConville (2014, p. 28). Additionally, I chose to formulate my interview questions in an open-ended format since, as Babbie (2014) explains, most “in-depth, qualitative interviewing relies almost exclusively on open-ended questions” (p. 263). The open-ended interview questions used for this project allowed respondents to give a wide range of personal responses, including stories and narratives they would not have been able to provide with other methods. Open-ended questions allowed respondents to provide their own answers, resulting in large amounts of qualitative data. I developed a list of interview questions and format with my committee to ensure cultural relevance and validity. Babbie defines validity as “a term

describing a measure that accurately reflects the concept it is intended to measure” (2014, p. 154). By asking valid and relevant questions regarding Alaska Native perspectives about food, health, and community well-being, I hoped to obtain an authentic reflection of these concepts. I avoided using double-barreled questions (asking for a single answer that actually has multiple parts), double negatives (two forms of negation used in the same question), or biased terms (properties of questions that encourage respondents to answer in a particular way). I used an interview format that included the approved interview questions, demographic questions, and referral option question (Appendix C).

I followed general guidelines for interviewing recommended in *The Basics of Social Research* (Babbie, 2014). When conducting the interviews, I took care to remain neutral, so that my presence did not affect the respondent’s perception of a question or answer given. I dressed in a fashion similar to that of the people I interviewed. I studied the interview questions ahead of time and remained pleasant, relaxed, friendly, and able to communicate genuine interest. When needed, I provided appropriate transitions between questions to guide the interview process and help the respondents follow the format of the questions. Probing was sometimes employed to elicit more complete answers and encourage a respondent to elaborate on an answer. Probe is “a technique employed in interviewing to solicit a more complete answer to a question. It is a nondirective phrase or question used to encourage a respondent to elaborate on an answer” (Babbie, 2014, p. 284).

3.6.1 Strengths of the Interview Method

I chose to use the interview technique for several reasons. Typically, interviews attain higher response rates than surveys or questionnaires that are mailed or conducted online,

partly because respondents are more reluctant to turn down an interviewer face-to-face.

Although the majority of my interviews were conducted face-to-face, I also chose to conduct telephone interviews with individuals to lower travel costs for my respondents and me.

Telephone interviews allow more representativeness of the population than online or mailed surveys, and have a low risk of harm to myself or others (Babbie, 2014). Interaction with an interviewer also decreases the number of “I don’t know” and “no answer” responses.

Interviewers can serve as a guard against questions that are confusing by clarifying misunderstandings, thereby obtaining relevant responses. For the purposes of my research, interviews also offered first-hand information, personal narratives, and the possible discovery of trends or patterns unique to a particular individual or community perspectives. At the data analysis stage of the project, the primary strengths of the interview method was the aforementioned ability to obtain culturally relevant, qualitative data, especially as I studied respondent perceptions.

3.6.2 Challenges of the Interview Method

Interviews typically take longer to conduct than surveys; this means not everyone has time to participate, certain people may not wish to be interviewed, and respondents might give shortened or otherwise modified answers to conform to perceived expectations. I made adjustments to account for these challenges by carefully formulating the interview questions, such as asking related questions in different ways, to allow for triangulation of the data.

Triangulation refers to combining multiple methods “to produce a more accurate, comprehensive and objective representation” in the data (Silverman, 2011, p. 369). I also made adjustments to account for time and space challenges by offering to conduct interviews around

the respondents' schedule and offering to conduct interviews in a comfortable environment chosen by the respondent. Berg and Lune (2012) note that respondents may be "fearful about being overheard or being seen" and they recommend that researchers "be sure that the location of the interview is somewhere the subject feels comfortable" (p.151). Allowing respondents to choose the location of the interview was important to their comfort and potentially reduced power dynamics between interviewer and respondent.

3.7 Recruitment and Sampling

I employed convenience and snowball sampling to contact potential research participants. Initially I relied on university-affiliated respondents (students and faculty), followed by snowball sampling using respondent referrals. This method was efficient in finding respondents willing to participate in an interview. The criteria for selection included personal identification as Alaska Native, aged 18 and older. I selected the research participants in three sampling phases. The first sample consisted of Alaska Native students and faculty (aged 18 and older) at the University of Alaska Fairbanks; I posted fliers advertising my project on campus (Appendix B). The second was snowball sampling; during interviews I asked respondents to refer friends or family. This method assisted in obtaining respondents representing multiple generations. Third, I solicited participation online via email requests and Facebook posts. Of the three sampling methods, the third elicited the most participants; social media proved to be the best tool for recruitment. Hill, Dean, and Murphy (2014) suggest this is a form of snowball sampling called "network sampling" where "secondary study participants are identified through social network information collected from an initial set of study participants" (p. 302). This was the easiest way for people to share the project opportunity with their friends. It thus employed

snowball sampling and assisted in obtaining respondents representing multiple communities. Facebook friends and respondents used the “share” feature to promote my post regarding interview participation, created posts of their own, or forwarded email requests. I advertised that my project was interested in all Alaska Native perceptions: urban, rural, multigenerational, all genders and ages (18+). When students wished to participate, I assured them that participation would not impact their grades whatsoever and that they were in no way obligated to complete the interview. I excluded people who did not identify as Native or who were under the age of 18 from my study because my research was specific to self-identified Alaska Natives and those legally of age to give informed consent.

3.8 Potential Benefits

While my research may inform future research, the benefits that will come directly from my study are that it may help identify social patterns about changes in the food that individuals and communities eat and shed light on the possible effects the changes have on all aspects of health. This work will help document how Alaska Native individuals and communities are adaptive and resilient. And it will honor, acknowledge, and highlight the personal perspectives and lived experiences of respondents and their views regarding food, health, and community well-being.

The benefit to an individual research participant is to be considered a “co-researcher” by participating in a graduate student research project at the University of Alaska Fairbanks. By sharing their perspectives and views, they are acknowledged as co-researchers in the study, although individual names are withheld to maintain confidentiality. Participant responses offered qualitative data about Alaska Native perceptions of diet and health essential to

research that could inform policy making and thereby affect their individual families and communities. Alaska Native communities may benefit by having this research positively affect public health policies, subsistence regulations, and further research on Alaska Native diet and health. Some respondents also perceived their interview transcript as a benefit because it was a record of their words that they could pass on to younger generations.

3.9 Potential Risks

The potential risks to an individual participant included personal discomfort common to the experience of being interviewed and sharing one's thoughts regarding food. As noted earlier, interview questions were formulated to be culturally appropriate to reduce the chance of personal discomfort. I advised respondents that they could refuse to answer any question. I acknowledge that there is potential risk to Alaska Native communities to perpetuate imperialistic views, attitudes, and beliefs about traditional Native foods and subsistence practices. To reduce the risk, I carefully formulated interview questions with my committee to be as culturally-relevant as possible. I conducted interviews in an accepting, welcoming manner, and assured participants that I am genuinely interested in their views. Considering factors such as historical trauma and research misconduct, it was important to me that I, a non-Native researcher, avoided perpetuating any colonial or imperial attitudes. I informed respondents that they always had the option to decline answering a question and I ensured that each one received contact information in case they had concerns after the interview. This included email addresses and phone numbers for myself, my faculty advisor, and the University of Alaska Fairbanks Office of Research Integrity in the event that respondents had any questions, concerns, or requests related to their participation in the study.

3.10 Interview Respondents

I interviewed a total of twenty (20) respondents. Eight men (40 percent) and twelve women (60 percent) participated. The respondents ranged in age from 25 to 87. Respondents self-identified with various communities and tribes. All demographic information such as age, tribal identity, and community of origin was recorded as the respondent answered or as the respondent specifically requested such notation (Table 1).

3.11 Data Collection

Qualitative interviews were conducted either on or near the University of Alaska Fairbanks campus in a place where respondents felt comfortable to talk, or by phone. A total of fifteen (15) face-to-face interviews and five (5) telephone interviews were completed. Participants read the IRB approved Informed Consent Form (Appendix A) and then both the participant and I signed it. I kept the signed copy and gave participants a copy of the Informed Consent Form (Appendix A) for their records. In addition to having a copy of what was signed, this also provided participants with contact information if they had questions or concerns after the interviews. When the interviews were conducted via phone, I emailed the Informed Consent Form (Appendix A) to participants; the participants signed it and emailed it back. I conducted the interviews face-to-face unless travel was inconvenient for the respondent, in which case I conducted the interviews by phone.

After reading and signing the Informed Consent Form (Appendix A), I asked participants if they had any questions before beginning the interview. Then I reminded participants that participation was voluntary, they had the right to decline any question, that their responses and personal information would be kept confidential, and that the interview would be recorded and

transcribed (these disclosures and rights are required by IRB standards in research involving human subjects). Before asking the first questions, I assured participants that there was no “right” or “wrong” answer, that I was only interested in their personal perspectives and views.

I asked respondents questions orally and recorded respondents’ answers with audio technology using a digital voice recorder that I obtained for use in this research. I assigned each respondent an audio file number corresponding to their respondent number in a running log for the interview collection. Saving them in this way helped “facilitate the preservation and long-term viability” of the data, as recommended by Bryson and McConville (2014, p. 127). Respondents’ recorded interview length ranged from 13 minutes to 97 minutes, with an average of 46 minutes (Appendix E).

After the formal interview questions were completed, some respondents continued to talk, tell stories, add thoughts they remembered regarding an interview question, or discuss a common interest discovered in our conversation. I thanked respondents for participating and for sharing their views and perspectives. I informed each respondent they would receive a copy of their interview transcript or otherwise have the opportunity to review the transcript for any corrections that might be needed. Bryson and McConville (2014) recommend that researchers “supply interviewees with a copy of their transcript so that they can review it and highlight corrections or redactions” (p. 130). This review step helped clarify speech difficult to hear in the recording and corrected misspellings; respondents often used words from their Native languages or names of places that I verified with respondents during this review process. The data collection process (including interviews, transcription, and respondent review) required a total of five months. I stopped conducting interviews when the data reached saturation.

Saturation occurs when researchers find “the generic features of their new findings consistently replicate earlier ones” (Alder & Alder, 1998, p. 87). In other words, the data reached saturation when new respondents consistently repeated the same or similar concepts and perceptions that earlier respondents had raised.

3.12 Data Storage

All data was stored on a password-protected computer in a locked office in the Northern Studies Program at the University of Alaska Fairbanks. All identifying data was kept confidential, meaning that all responses, names, addresses, and phone numbers have been withheld in this thesis. In research, confidentiality is maintained “when the researcher can identify a given person’s responses but promises not to do so publicly” (Babbie, 2014, p. 68). Data such as age, gender, tribal identity, and community of origin were only attached to an assigned respondent number. Data (audio files and transcription texts) were stored in a secure (locked) office on a secure (password-protected) computer during the life of the project. After the project, data will similarly be saved, stored, and maintained by my faculty advisor, Dr. Sine Anahita, for seven years, then destroyed.

3.13 Data Analysis

After we recorded the interviews, I transcribed each as Word document with a file name indicating the respondent’s initials and the date the interview was recorded. I transcribed respondents’ answers closely and prepared the data for coding. Transcript word count ranged from 1,651 to 9,895, with an average of 5,427 (Appendix E). I then imported the interview

transcription documents into the software program, NVivo, purchased for student use by the Northern Studies Program.

The analysis phase pursued both descriptive and explanatory aims. The initial state of descriptive analysis refers to “unpacking the content and nature of a particular phenomenon or theme. The main task is to display data in a way that is conceptually pure, makes distinctions that are meaningful and provides content that is illuminating;” this includes detection of substantive content and dimensions of phenomena identified, categorization of descriptive data, and classification of categories (Ritchie & Lewis, 2003, p. 237). Explanatory analysis refers to “examining the reasons for, or associations between, what exists” in the data (Ritchie & Lewis, 2003, p. 27). Using triangulation methods to avoid over-subjectivity, I looked for patterns in the answers to similar interview questions. Triangulation assumes the use of different sources of information (respondents) “to check the integrity of, or extend, inferences drawn from the data” (Ritchie & Lewis, 2003, p. 46). I also employed intercoder reliability on selected transcript passages as “a measure of the extent to which independent judges make the same coding decisions in evaluating the characteristics of messages” (Lombard, Snyder-Duch, & Bracken, 2002). In this process I maintained respondent confidentiality, meaning that I ensured that passages studied did not contain personal or identifiable information.

Next I open coded the data itself (verbatim transcription text) in NVivo. Open coding refers to “classification and labeling of concepts in qualitative data analysis. In open coding, the codes are suggested by the researchers’ examination and questioning of the data” (Babbie, 2014, p. 410). As I examined each transcript, I coded or labeled each concept in the data as a “node” in NVivo. Open coding ultimately resulted in a total of sixty-four (64) “nodes,” or

concept codes, represented in the data. Each respondent's "nodes" ranged from 17 to 54, with an average of 36, while references ranged from 30 to 242, with an average of 105 (Appendix F).

Part of qualitative data analysis requires researcher reflexivity which involves being thoughtfully and critically self-aware of personal or relational dynamics that could affect the research. As Ritchie and Lewis point out, "while researchers can strive for neutrality and objectivity, we can never attain this aspiration fully . . . We try to reflect upon ways in which bias might creep into our qualitative research practice, and acknowledge that our own backgrounds and beliefs can be relevant" (2003, p. 20). I made continuous efforts to remain neutral and to allow the data to dictate concepts in coding and analysis.

My analytical approach was primarily coding and content analysis of the data. I also quantified recorded answers given to specific questions to determine how many respondents gave similar answers, and I looked for patterns in the data. I discovered further insights, themes, and patterns using hand annotation of previous coding and analysis. I used the data in the form of direct quotations whenever possible to illustrate a concept, theme, or idea. I continued this method of analysis in the presentation of findings (Chapter 4). Rather than formulating assumptions or preconceived concepts about Native food and health, I allowed the data to present groupings of ideas and patterns according to the grounded theory method.

3.14 Grounded Theory Method

I employed the grounded theory method, an inductive approach to research in which theories are generated solely from an examination of data (Babbie, 2014). Rather than beginning with a hypothesis, the grounded theory method gives priority to deriving analytic categories directly from the data (Emerson, Fretz, & Shaw, 2011). Hypotheses derived from my

data frequently changed as I analyzed the data. In other words, my conclusions evolved through information acquired through additional content analysis. By using coding and the capabilities of NVivo, I took a systematic approach to analyzing the various data collected through my interview process. This allowed me to discover themes, patterns, categories, and exceptions represented in my respondents' answers. This method can be described in four stages: comparing incidents applicable to each category; integrating categories and their properties; delimiting the theory; and eventually writing the theory (Glaser & Strauss, 1967). I completed the initial classification and labeling of concepts in qualitative data analysis through open coding, followed by a reanalysis of the results aimed at identifying important general concepts in axial coding. Finally I identified central concepts that organize the other concepts identified in a body of textual data in selective coding (Babbie, 2014). The advantage of grounded theory method is that it allows the data to assign themes and patterns rather than the researcher's applying pre-determined categories to the data. The purpose was to find emergent themes in the data related to concepts of Native or subsistence foods and their effects on community well-being and dietary health. Based on qualitative and inductive analysis of the data, using the grounded theory method, I developed the concept of nutritional colonialism. I elaborate on this concept in the next chapter.

3.15 Conclusion

Using the research question ("What are Alaska Native perceptions of community well-being and dietary health?"), I employed interview techniques to obtain data to analyze for patterns, themes and concepts related to Alaska Native culture, foods and health. Using the grounded theory method and qualitative data analysis guidelines, I organized the emerging

findings for discussion. The findings were outlined using headings and subheadings represented by the data.

Chapter 4 : Discussion of Findings

4.1 Introduction

Regardless of climate changes, historical trauma, globalization, and the resulting damage to Native communities, Indigenous cultures will continue to persevere. The persistence of Native values, worldviews, identity and spirit, despite Western assaults, is testament to their power. As many Indigenous authors have noted, researchers and advocates may lend valuable support, but the keys to health and well-being are in the hands of Native communities themselves. As I documented in Chapter 2, the gap in the literature, in part, appears to be interest in documentation of Native peoples' perceptions of the changes in food systems and effects on their communities. Additionally, the literature lacks studies specific to Alaska Native individual perceptions of health and well-being. Therefore, my research aims to help identify social patterns about changes in the food that individuals and communities eat and possible effects the changes have on all aspects of health; it aims to help document how Alaska Native individuals and communities are adaptive and resilient; and it aims to honor, acknowledge, and highlight the personal perspectives and lived experiences of respondents and their views regarding food, health, and community well-being.

4.2 Nutritional Colonization: A Framework for Understanding

In colonial times, Euro-Americans often perceived Native traditional lifestyles as backward, uncivilized, wrong, or evil. Assimilation, Christianization, and Western education often resulted in confusion, depression, loss of positive identity, a struggle to conform to Western standards, and in some cases complete rejection of Native culture in favor of Western

lifestyles and ways of thinking (Napoleon, 2005). Even in the post-colonial age, all Indigenous cultures are under assault, but the current threats come from the dominant capitalist corporate industrial global food system, which I call nutritional colonization. Not only have some Alaska Natives experienced loss of identity and expression of ethnic pride, self-sufficiency, recognition of skill, and ability to provide for their communities through subsistence lifestyles, but Western substitutions contain less nutrients, require cash, contribute to sedentary lifestyles, and are culturally insignificant (Loring & Gerlach, 2009). Loss of land rights, hunting and fishing access, resource development control, and effects of climate change are restricting areas of traditional food sources. Conversely, a socially and culturally ethical food system would meet human needs for adequate nutrition, access to participation, and freedom from exploitation or oppression.

As noted in Chapter 2, Alaska Natives, like other Indigenous peoples, tend to perceive traditional foods as important for cultural preservation, individual health, and community well-being. However, traditional roles once played in cultural food acquisition, production, processing, and preserving have diminished as Outside products have increased. The loss of local control over food continues to contribute to health disparities and cultural degradation. This process of nutritional colonization creates dependency on a food system marked with industrially processed food-like products, chemicals, and feedlots that function to maximize corporate profit. In numerous ways, this global change is often incompatible and incongruent with traditional Native cultures.

Native populations have experienced relatively rapid diet changes due to industrial influence and corporate monopoly of the global food system. Indigenous peoples now suffer

health risks due to this accelerated alteration from traditional diets toward non-Native foods typically processed, with long shelf lives, and requiring extensive transportation. Native rural communities often incur high costs when supplementing or replacing subsistence foods with imported store-bought foods. This combination of corporate control over what foods are available, who can afford them, and how they are produced can be termed nutritional colonization because it exploits peoples' labor, health, environment, and well-being. This system creates an abundance of food, but fosters disease, hunger, and poverty through its mechanisms of production and distribution and consigns those without income or time to the domain of less nutritious or unethical food choices (Patel, 2012). While commercial foods may satisfy hunger in the short term, the risk of institutionalizing inadequacies and health problems in the long run are too costly for already marginalized peoples (Loring & Gerlach, 2009).

Stability and security of communities is maintained when people can provide their own food that is safe and culturally significant, but this is increasingly scarce as global corporate agribusiness monopolizes the food system at all levels. The globalized industrial use of chemical fertilizers, herbicides, pesticides, and corporate control increasingly threatens local production, food safety, food security, health, and ecology. The current industrial food system is criticized for its systematic cruelty to animals, its unsustainable use of fossil fuel and water, and its contributions to global climate change – all of which conflict with Indigenous lifeways and values that hold great respect for animals, land, and resources for future generations.

Traditional subsistence values are quite opposite of the current capitalist corporate-owned global food system based in money values. Nutritional colonization is intentionally maintained by this system that promotes accumulation benefiting a few, has loyalties to

shareholder profits, limits local economies, and compromises the natural environment. My research helps provide a voice for Alaska Natives to express their perspectives, views, and lived experience with current system and its affects. Indeed, the concept of nutritional colonization was borne out of both the literature I studied and the data obtained by the respondents in my research through the grounded theory method.

4.3 Interpretation of the Data

As described in Chapter 3, I analyzed interviews and transcripts for themes, patterns, and concepts related to Alaska Native perceptions of food, health, and community well-being. During this process, emerging links in the data provided the results discussed regarding the research findings. I divided these into categories under larger subject headings related to the research topics. Lastly, I discuss suggestions for change in relation to the concept of nutritional colonization and participant responses. Although the interpretation of the data is organized into different topics, it is important to note that many Alaska Natives do not view them as separate subjects. As discussed in Chapter 2, many traditional worldviews consider all areas of health and well-being as interconnected, all part of the same thing, and inseparable from the whole. In addition, because I am non-Native, I may be unaware of culture-specific nuances implied in respondents' answers. In other words, a Native researcher would likely have presented the findings differently. Despite our best efforts to remain neutral and open-minded, any researcher has his or her own worldview and biases that inevitably flavor choices in methodology and presentation of findings. My goal here is to honor, highlight, and acknowledge the perceptions of my respondents to the best of my ability. However, due to the amount of data and the wide variety of responses, discussing all the findings would be lengthy.

Therefore, important points, themes, and subjects repeated in data analysis will be presented in a way that honors both individual experiences and overall trends. *When the same or similar words or phrases were used by multiple respondents, the words or phrases are presented in italics.* I use direct quotations to illustrate the concepts represented by the subsection categories. For references to respondent number, see Table 1. Note: Tribal Identity, Community of Origin, and age were all self-identified by the respondent.

Table 1: Respondent Number and Demographic Information

Respondent	Age	Gender	Community of Origin	Tribal Identity
1	69	W	Healy Lake, Tanacross	Athabascan
2	56	M	Beaver/Ft. Yukon, Barrow, Fairbanks	Nuiqsut
3	65	M	Fairbanks	Iñupiaq
4	50	M	Venetie	Gwich'in Athabascan
5	64	M	Barrow, Iviksuk	Inuit, Inupiat
6	46	W	Bethel	Yup'ik
7	25	W	Fairbanks	Athabascan
8	25	W	Chalkyitsik, Fairbanks	Doyon
9	36	W	Selawik	Iñupiaq
10	36	W	Eklu	Athabascan
11	57	W	"Interior village"	Inupiat Eskimo, Koyukon Athabascan
12	43	W	Tanacross	Mendas Cha-ag, Athabascan
13	36	W	Kaltag	Koykon Athabascan
14	26	W	Eagle Village, Fairbanks	Athabascan
15	48	M	Teller, Anchorage	Iñupiaq
16	27	M	"the community"	Athabascan, Navajo
17	69	W	Healy Lake, Dot Lake	Athabascan
18	59	M	Shishmaref, Teller	Kaweramiut
19	66	W	Tanacross	Athabascan
20	87	M	Old Minto	Athabascan
Total:	990	8M/12W		
Average:	50			

4.4 Perceptions of Traditional Foods

When asking respondents what they thought of when I said the word “food,” I received a variety of answers. Some related to health or family, but the majority of responses specifically related to subsistence, traditional foods, and the role of food as a basic need for survival on a daily basis. Traditional foods were primarily viewed as processes rather than objects. For instance, R11 stated, “I have a whole relationship with food. I like to hunt. I like to fish. I like to process food. I like to preserve it. I like to feed people.” Throughout the interviews, respondents referred to traditional foods in multi-dimensional and multi-faceted ways. Although traditional foods were often named (fish, moose, berries, roots), the vast majority of responses regarding subsistence diets involved beliefs, perceptions, meanings, and connections.

4.4.1 Healthier

The majority of respondents described aspects of traditional foods as having connections to all categories of well-being. However, the most frequent message was that traditional foods are *healthier* or *better for you*. In addition to this primary perception, respondents described traditional foods as making them feel stronger, warmer, and enjoy longer-lasting energy. Traditional foods simply make a person *feel good* or *feel better*. Respondents referred to the body *operating better* and said the body can process traditional foods better than market foods. Some respondents believed that traditional foods preserve the body for better functioning and a longer life.

Many respondents perceived exercise as another benefit of subsistence foods. Traditional nomadic lifestyles meant *exercise was just a common everyday part of life* and kept

us very healthy. This physical activity built strength, endurance, and agility to *catch game* and *pack it out*. However, today “it’s easier to feed your face than it is to go and exercise” (R6).

Some respondents acknowledged traditional foods associated with subsistence activities not only as providing exercise, but also in reducing illness and being ideal for weight maintenance.

In addition, respondents expressed the belief that traditional Native foods are nutritionally superior to market foods. As R19 suggested, “Make sure you have the fish at all times, you know, just to keep your health going.” Respondents viewed long-term benefits of traditional foods as personal and physical as well as cultural and more ecologically sustainable.

In the event of illness, respondents also perceived subsistence foods as healing. Not only were some Native plants described as *medicine*, but traditional foods such as fish, muktuk, and seal oil were mentioned as important for recovery from surgery or various illnesses.

4.4.2 Culturally Significant

Respondents emphasized that they used traditional foods for other purposes besides nourishment. Traditional food was seen as *much more than just getting something to eat*. They involve cultural aspects related to identity or *how to find out who you are*. Respondents described food from the land as having a heritage because it had provided for their ancestors for thousands of years and this should be passed to the next generation. They expressed concern that today’s youth are missing the many benefits of culturally-significant foods. As R15 said, “If the youth aren’t eating traditional foods, what else aren’t they learning about who they are?” Respondents also expressed the concern that appreciating some traditional foods requires an *acquired taste* that children need to *develop*, but that many seem to be *missing that stage*. Overall, when people participate in subsistence activities and eat traditional foods,

they learn more. And although availability of resources has changed, respondents always expressed gratitude for subsistence foods.

4.4.3 Emotionally and Socially Significant

Respondents associated traditional foods with better emotional and social health, especially when people received and shared subsistence foods. They described sharing traditional foods as *a good feeling*. Traditional foods made people *happy* and was viewed as essential for emotional health. Many respondents reported that eating traditional foods made them mentally alert, with a clear mind, and made them feel more content. They often *missed* this affect when traditional foods were limited and some described feeling *pretty happy* when seeing or eating Native foods after an absence of them. This was tied to appreciation and respect for land and animals that *makes you feel good about being natural and traditional about your diet*. The effect was especially significant for those who had responsibility to acquire wild foods. For a hunter, *when he hasn't been out hunting or fishing for a while, there's a difference in his mood*. It was important for hunters to *go out there . . . doing things* that had *those connections* to emotional and spiritual health. Hunters who could not provide for their family felt they were a “failure. And then that bleeds over to the family” (R6). People felt frustrated when they worked hard in both subsistence and wage economies, but still could not *make it*.

Although subsistence activities requires *a lot of work*, respondents expressed joy in the *beautiful connection to the food when you harvest it yourself* and the accompanying *camaraderie with your family and friends*. They expressed joy in knowing traditional foods “can feed your family and friends” and “there’s a real social connection that I’m so happy we have . .

. that connection of getting together and eating and laughing and just the pure pleasure of good food” (R11). Nearly all respondents described how traditional food *connects people* and that social connections are part of processing, eating, and sharing traditional foods. Food was said to facilitate *a lot of communication* and that “all food is tied to a story; and those stories connect us” (R10). Some respondents perceived that anything social *would encompass the community*, and that hunting and gathering was “a social activity; we have to have cooperation” (R15). A potlatch was also described as *more spiritual* because everyone involved had prayed in the process of getting the food together.

Respondents described the potlatch, especially, as *a social event*, involving friends and relatives, noting that *it’s very communal, and you bond over it*. Potlatches involved wild game, wild berries, moose meat, rhubarb, fish, or what respondents referred to as *healthy food*. R12 explained a “really good feeling” at the potlatch where foods are “prepared from the wild, from the land” and that her children were “so relaxed when we go back to family and friends that have traditional foods.” Many respondents said they enjoyed making food for others and *the joy you see on their face*. R13 explained, “In our culture, when we gather, when something happens, people bring food. And it’s just the basis for everything.”

4.4.4 Spiritually Significant

Some respondents expressed an absence of, or were unaware of a personal spiritual connection with traditional ways, usually due to a lack of participation in subsistence activities. Others described spiritual health as having *connection to us in all aspects* and traditional spirituality had *a foundation of healthy living*. There was a spiritual connection to *being out on the land*, and a connection between spirituality and harvesting food. Spirituality was described

as a *connection to the animal, to the land, to the animal spirit*. Another key component to spirituality involved gratitude and respect. Respondents said “You always thanked the fish before you gutted the fish” (R8), there was “respect for Mother Earth” (R12) and respect for the animals *that gave their life to feed us*. Rather than “kill it outright, you put a lot of soul into it” (R8). As R11 explained, “There’s a real spiritual component to going out and harvesting food from the land. It’s respect for the animals and the respect for nature, and just respect for yourself. Going out and harvesting – it just fills your spirit. It feeds your spirit and your body.” She also described being “very particular” about who they go hunting with because of “the spirituality” involved with hunting: “We harvest in a respectful spirit-filled way.” This respect was described with both hunting and gathering. R11 said an Elder described berry picking as “a form of praying for her because she was down on her knees and picking berries, being reverent to the land, being respectful.”

Most respondents described a spiritual connection with traditional foods, but little to no spiritual connection with market foods. There was a spiritual connection to the moose or caribou in the wild that *showed itself to you and you were able to take its life to feed your family*, whereas respondents did not have a connection to meat that originated from mass production. Other respondents said *there’s just no connection* with junk food and processed food. Likewise, R10 said, “I think you have a greater connection to your spiritual self or the higher power you have when you are actually doing traditional ways of living. But I don’t think there’s as much spiritual connection to Western food.” Part of this difference was due to the personal connection and respect for the animals. R13 explained, “In our culture there’s real connections to animals and how you hunt and how you take care of them when you’re doing it”

and “the amount of respect you show.” Respondents emphasized spiritual connections with the deep respect associated with actions they mentioned, such as: giving an animal its last drink of water, keeping meat clean, trying not to waste, giving thanks, burning food for ancestors, and feeding the river. These practices also ensured that the land and water would continue to feed people. Respondents perceived spiritual connections to be greater for the person who actually does the hunting, fishing, catching, and cleaning. This was also described as “a form of healing, the air around you, the openness and the beauty of the land and the beauty of picking the berries . . . that whole appreciation for wilderness is a beautiful experience” (R11).

Although most respondents described traditional foods as having a spiritual component for those who hunted or gathered, others expressed spirituality in the act of consumption. For instance, R15 stated, “After I’m done eating traditional food, I can feel my spirit.” Likewise, R8 expressed, “Food does have a lot to do with spirituality. If you take goodness into yourself, then that’s bringing goodness within and without you.” Respondents perceived spiritual benefits of traditional foods in all aspects of health. Many Alaska Natives view all things as connected and believe that “all those things . . . emotional, spiritual, nourishment, physical, social . . . there’s no boundary . . . they’re all pieces . . . that make a whole” (R18).

However, respondents noted that spirituality was viewed differently in reference to Western religious influences. They considered traditional or cultural perceptions of spiritually different from Western religious views partly because Western religions often encouraged Natives to give up traditional ways. R5 said some Evangelical groups told Native people that their cultural ways were evil, and that rather than helping others, they only needed to “pray for them,” “leave everything to God,” and “give us your money.”

4.4.5 Shared

The majority of respondents mentioned sharing and trading of traditional foods as a key aspect of subsistence activities. Many said they rely on this network, and that *sharing Native foods is instantly a good feeling*. Not only did they recognized this system as an important component of community well-being, but as a role expectation. For example, R18 explained, “The importance of being a hunter-gatherer is sharing what you have.” Some respondents perceived that sharing hunted food increased unity: “A community that shares the wealth of being a hunter-gatherer society . . . it does bring a community together and make them stronger” (R18). Additionally, *local-grown* was said to bring about more of a community because “you are what you eat and that applies to the whole community” (R15). For this reason obesity was a concern for community well-being because subsistence activities were considered shared community events and obesity was viewed as limiting one’s ability to fully participate in the physical activities required in subsistence lifestyles. Therefore, “not going out hunting is not engaging in your own community” (R15), whereas taking care of your own health makes a healthy community. Individual health problems were said to have affected the health of the community, the economy, and the healthcare system. Respondents said high rates of diseases like diabetes *definitely affect the community* and the shared activities that produced subsistence foods.

Some went so far as to describe sharing as a community health indicator. As R10 stated, “I think that some communities are defined by the kind of food that they have or that they provide for their community members. I think food brings you together as a community in a lot of cases.” Potlucks were especially bonding for the community and included connections to

culture giving individuals a sense of “where their background comes from” and “a connection to heritage” (R18). While many noted that *healthier communities kept alcohol out*, exercised traditional values, and taught children to speak the language, others described community as *one huge family* and said that members were *supposed to help everybody out* by sharing. However, staples such as fish were definitely needed and were important for the community to be able to access, but now “unfortunately, there are a lot of people that don’t have that” (R6). Nevertheless, respondents noted that even people in need would share with others. For instance, R10 said, “If you went to a Native person’s house and they didn’t offer you food, something is wrong! Even if they were very, very poor and all they had was dried fish in the freezer, you would be offered dried fish.”

Although respondents perceived that sharing still occurs, many noted changes over time. As R2 stated, the process of subsistence sharing transitioned: “It was communal. They decided when they got a moose or something, they split it up . . . but the White man came and they want to be every man for himself. You go shoot a moose and you put it away for yourself.” Some respondents viewed this as an example of the shift from community-orientation to individual-orientation observed as a result of Western influences. Although respondents acknowledged a decrease in traditional food sharing, some reported continued occurrence of sharing, and that sharing continued to be perceived as an inherent characteristic of subsistence foods.

4.4.6 Respected and Valued

Most respondents perceived traditional foods as having value or being cherished in a way that market foods were not. In fact, they also described a different kind of respect for

traditional foods and said that respecting self and others is required to “have luck” in hunting. Many respondents said they appreciate traditional foods, that “you are always thankful,” and that if anything was offered, it was accepted gratefully. They also described appreciation for the land and respect for animals, and said that nothing should be wasted or thrown away. For example, R13 explained, “In our culture there’s real connections to animals and how you hunt and how to take care of them . . . the amount of respect you show.”

Above all, traditional foods were perceived as having an authenticity not associated with market foods, or as some said: subsistence food is *real food*. Likewise, people *value the meat that they hunt a lot more than what they can buy*, and “food was something that you cherished and you valued because you worked really hard to get it” (R10). Despite the abundance of market foods, respondents described subsistence activities as *definitely a necessity*. Respondents acknowledged that subsistence activities are *harder* to obtain food than purchasing, but they are *well worth it*.

4.4.7 Concerning Changes

Some respondents perceived changes to animals and land as having effects on human health. They expressed the view that traditional foods are being affected by other changes in the world, such as political, economic, or environmental influences. However, some respondents stated that traditional foods *shouldn’t be affected* because they are too precious to jeopardize. All respondents expressed concern about changes to traditional foods. Most concerns centered on possible contamination, the ability to access and afford traditional foods, and the changes they saw in youth. While they perceived traditional foods as less contaminated by additives found in market foods (preservatives, artificial flavors), they viewed traditional

foods as potentially more contaminated by military and industrial pollutants. There was concern that game animals and fish were contaminated, that some animals looked unhealthy, and that the land they lived on had been polluted. They expressed uncertainty about the extent and length of contamination. Despite potential contamination, some felt they had no choice but to eat traditional foods, because they could not always afford to buy market foods. However, others were concerned about being able to access and afford to participate in subsistence activities, especially when employment often requires urban residence.

Another perception involved the changes regarding involvement in production, including knowledge about how and where food originates. As R10 explained, “We’ve lost that concern about where it comes from and how it gets there . . . I see our community having become a little lazier with wanting to know the origins or doing any work to find out what’s in the food . . . It used to be you worked pretty hard to get the food on your plate, so you knew what was involved.” While many respondents acknowledged this as part of the nutritional transition, they expressed concern that less knowledge of and less participation in subsistence production led to a variety of side effects, such as loss of cultural connections, loss of control over resources, and loss of health due to dependency on market foods.

Finally, respondents expressed the greatest concern regarding changes in acquisition and consumption of traditional foods affecting youth. They perceive *The Now Generation* as eating less traditional foods. Those who grew up with primarily subsistence diets tended to prefer traditional foods whether or not they were still able to obtain them. For instance, R18 reported, “You’re going to see a lot of elderly people preferring Native foods if they can get their hands on it, compared to processed foods.” Respondents perceived the type of foods that

a person was accustomed to as the primary factor in determining preference, but this was of special concern regarding youth. There was a perception that in schools especially, “how children are being fed” has “trained their preferences” to the point that their “culture is being demonized” (R5). To counteract this influence, parents often made efforts to include subsistence foods at home. However, several parents reported deliberate offering of traditional foods to children who were primarily raised on market foods to be met with some resistance. In fact, some respondents stated that youth are beginning to reject traditional foods. In most cases regarding children, traditional foods have become a smaller percentage of their diet. Instead of being a staple for survival, at best, respondents reported that traditional foods have become a treat or a delicacy that is rarely enjoyed by younger generation.

4.5 Perceptions of Market Foods

Respondents viewed market foods as being very different from their traditional Native foods; even the terms used indicated perceptions. They referred to market foods as *Western food, American food, city food, fast food, store-bought food, or junk food*. Respondents also mentioned market food brand names (Kool-Aid, Spam, Coke) as well as restaurant names (McDonald’s was mentioned most often). Although they sometimes identified market foods (such as flour, sugar, bread, hot dogs, coffee), the majority of respondents expressed concerns related to health, money, and industrial influence. Respondents appeared to reluctantly accept these influences as part of assimilation. As R10 said, “Even though I see it, I still can’t stop it or change it.” Most participants expressed the need for more awareness regarding industrial influences and their consequences for Native communities.

All respondents perceived market foods as being *more available* or said that industrially produced products have *really increased*. Some respondents said these products are so abundant that they are now perceived as disposable, that there is a tendency to *over-use it*, and that has fostered the mentality of *eat as much as you can*. Several respondents attributed the abundance to increased availability as a result of transportation advances as well as corporate influence such as marketing.

4.5.1 Less Healthy

Respondents said they felt market food was *not healthy, not all that healthy*, or that it *isn't all that great for us*. Although some participants viewed certain commercially available fruits and vegetables as being healthy, others were more skeptical of store-bought produce as “probably healthy for you, if you can wash off the pesticides” (R12). While some believed that market foods can be healthy, the vast majority agreed that store-bought foods cannot substitute for traditional foods.

Respondents felt market foods had short-term benefits, provided a false sense of well-being, and contributed to more illnesses resulting in more medication use, weight gain, and physical aches and pains. Some viewed these conditions as a product of becoming more sedentary due to having jobs in the city. Nearly all respondents perceived weight gain as resulting from eating *city food* or *Western food*. Weight gain in youth was especially of concern. They associated these concerns with having access to convenient market foods, moving to the city, or becoming dependent on non-Native foods. R16 stated “I moved into the city and I gained a lot of weight because I had convenient food.” As R5 surmised, “As much as they’re tasty and easy to get, they are just fattening.” Participants perceived market foods as sweeter,

saltier, and more processed. They viewed these traits as leading to destruction of children's teeth, weight gain, diabetes, high blood pressure, and an increase in diseases that affect community health.

Not only did respondents describe market food as *bad for you, makes you fatter and more sick*, but they related these foods to other health behaviors and attitudes that affect well-being. Some respondents believed that store-bought diets slow down thinking, reactions, and motivations. Others believed that because market foods are *easier* to obtain, they *make us weaker*, and they said that many Native people experienced a loss of strength or stamina when consuming more industrial foods, and that, in turn, led to a *negative outlook on life* and compromised emotional well-being. R8 explained, "When you're shoving yourself full of processed foods, where is the happiness in that? Where did that come from? Why are you putting that into your body and you don't even care about it?" Some respondents who experienced depression said this would lead them to eat more, which would cause them to gain weight, which made them more depressed, so they ate *some more*. Overweight children, especially, were perceived to have low self-esteem which also affected social well-being.

Participants associated junk food availability and convenience with having "different emotions in the city . . . more stress" (R12), and said that stress led to poor diet choices. For instance, respondents described having had a bad day at work and then *just wanna eat crap*. Because junk food had short-term benefits, it led respondents to want more, to *make you feel good*. Respondents said they had to be aware of the connections and emotions attached to food when they perceived the urge to feel good to be filled by junk food. Some respondents believed that people could become addicted to food because of the connection to moods and

emotions. They perceived unhealthy foods to affect motivation and interfere with emotional mood. Some said unhealthy foods “slow you down in your thinking and your reactions and motivations” (R10). Others mentioned there was a potential emotional connection to drugs and alcohol, as well as food, especially in times of stress. They said sometimes people use these emotions to rationalize behavior, which made it difficult to maintain a mentally healthy balance.

Many respondents expressed dissatisfaction with market foods in alleviating hunger. In describing his experience eating “white man food,” R2 said “I never get satisfied.” R5 expressed a similar perception: “Eating beef and pork and chicken, turkey, and that kind of stuff, what we find is that we quickly realize that we’re constantly hungry . . . we’re feeling the cold a lot more, and causes us to gain weight. So that’s been a problem with eating Western foods in the arctic regions.”

Other respondents perceived market foods as having added chemicals, sweeteners, or unknown ingredients they suspect as having an addictive component. For example, R11 said, “I’ve noticed there’s a lot of food additives in Western foods that make you want to eat them. They trigger a response in your taste buds and in your brain. And so I think that some of our processed foods are addictive.” Another respondent regretted that his grandchildren are “hooked on processed foods” and the effect on them “is appalling” (R5). Many participants perceived children’s attraction to junk food as a problem because it is difficult for kids to change when they are already accustomed to store-bought foods. One Elder believed that a dependency on Western food, religions, and lifestyles creates different types of mental behaviors “all geared toward keeping the person at the minimum so that they can be mentally

controlled” (R5). Part of this dependency on Western foods and lifestyles comes with participation in the wage economy.

4.5.2 Tied to Money

Market foods were unanimously perceived as being available, fast, and convenient in a society in which one must keep up with the pace. However, respondents disagreed regarding whether market foods were *cheap* or *expensive*. The difference of opinion was primarily dependent on *if you have money* or not. Therefore, participants tied one’s access to market foods to cash, regardless of urban or rural residence.

Another difference of opinion was dependent on residential location. For those in rural areas, residents *don’t have money for it*, as the village store is *crazy expensive*, and many cannot afford to have market foods shipped. Whereas those in urban areas perceived industrial foods as fast and cheap, which *frees up time for other things* such as participation in wage employment, which some viewed as leading to dependency on market food sources. As mentioned earlier, participants perceived dependence on market foods as coming with some risk regarding additives commonly used in industrially processed foods. However, many said that people are *too busy* or *don’t have enough money* to care about how food is made or where it comes from. As R14 expressed, there is “denial to some point, for survival. We only have so much money, we only have so much time, so rather than take a look and analyze what’s on your plate and what you’re putting in your body, you just ignore it and go through it. If it kills you, it kills you . . . but you’re too busy to put some thought into it.” She also remembered how she felt when she was struggling financially: “I can’t afford anything nice to eat. I have to eat junk. That didn’t make me feel very good.” But having a better job now enables her to “eat

better so I don't end up sick . . . it's been pretty difficult, just with what's available and stuff. Like eating well is pretty expensive" (R14).

Other monetary perception related to local businesses being replaced by Outside corporate interests which have weakened the local economy and the level of Native self-sufficiency. Some respondents viewed the dependency on the corporate food industry as *corrupting*. For instance, R18 stated that industrial food "has a way of taking over, especially in a cash society." Participants viewed Alaska as being very vulnerable to the transportation and delivery of market foods due to remoteness, weather, and high shipping costs, which means that local choice and control is *very limited*.

4.5.3 Less Knowledge

Respondents said they had less knowledge about where market foods come from than where traditional foods come from. Some said that *nobody knows* because *labels don't tell you everything*. Some expressed particular concern about meat from fast food sources that was *only made to look like meat or doesn't even seem like food*. As R9 remarked, "I see processed foods and I sometimes wonder if I'm even eating real food or not, because I don't see where it came from; I don't see it in its original state." This was especially concerning in regard to industrially-produced meats: "When we eat beef, you don't know what they injected in them when they were producing them" (R1), or as expressed by R6, "the growth hormones they were adding to stuff, like your chicken, your pork, your beef, and even vegetables. You know, they gotta get that stuff out there, they gotta make money, so let's push everything along a little bit more. And even though it's sold doesn't mean it stops. It's still in the animal, so therefore, it's brought over to whoever consumes it."

Respondents expressed the concern that people who buy meat are deprived of the connections required for attaining skills. Nearly all respondents expressed the perception that because store-bought meats are easier to obtain, *you don't learn anything*. This suggests that store-bought meats lack the learning opportunities that subsistence activities provide. This also suggests that the lack of knowledge about how and where market foods are produced leads to the perception that market foods have less value than traditional foods.

4.5.4 Less Value

The majority of respondents perceived market foods that were farmed or purchased as *not valued, undervalued*, or had *no value* compared to traditional foods because *you don't have to work hard to get it so nobody cares*. They attribute this perception to the belief that market foods promote laziness and do not teach Native values. Nearly all respondents expressed the perception that market foods *severely affect Natives* because everything about them is *the complete opposite to the way our culture operates*, especially in the following ways: (a) market foods create competition rather than cooperation; (b) market foods create dependency rather than self-sufficiency; and (c) market foods have displaced traditional gender roles in hunting, gathering, and processing, and instead requires participation in the wage economy.

However, the respondents' primary reason for valuing market foods less related to the lack of spiritual connection, as *not attached to spiritually*, or *not as much spiritual connection*. In regard to mass-produced industrial products, R12 expressed, "I don't really have a connection to that." This lack of spiritual connection was viewed as a significant reason for market foods being less valuable than traditional foods.

4.5.5 Associated with Junk Food

All respondents associated market food with junk food, noting that *there's a huge difference* between junk food and traditional food. Examples of junk foods most often mentioned were chips, soda, and other highly-processed shelf-stable products usually associated with added sugar, salt, and preservatives. Respondents especially noted increased quantity and availability of junk food in schools and village stores. The availability of instant or prepared foods “is abundant now . . . all the junk food you’d ever want” (R11), a “mass quantity of it” (R4), despite the perception that *it's not good for you*. Both urban and rural participants noted the availability of junk food. One woman who worked for a grocery store packaging bush orders remarked how similar all the orders were. She lamented that “people spend all their money on junk food” and wondered if people were “just going to have chips for supper” (R14). This was especially concerning because *you can't live off soda and chips in the winter* due to their inability to provide warmth, nutrition, and strength.

Some respondents recalled negative effects of their eating junk food, such as “my stomach gets upset . . . physically I feel like I suffer” (R10), and other issues related to weight gain and illness. There were also perceptions involving the short-term energy and lack of satiation provided by junk foods. For instance, R11 said, “It’s not the full that gives you energy; it’s the full that doesn’t feel good,” “I don’t stay as full,” and “I get a feeling of agitation and energy for a short period and then I come crashing down when I eat a lot of junk food.” She said junk food was like bad gas in your car: “You just sputter along.” Likewise, R16 recalled his former diet of Mountain Dew, pizza rolls, and McDonald’s that made him “fat,” “sluggish,” and

“depressed.” Many respondents believed people became malnourished when they primarily consumed junk foods and that Natives *should stay away from* junk food.

Of particular concern, respondents perceived that parents do not or cannot monitor children’s junk food intake. Several parents said their children constantly requested pizza and fish sticks, and that “it’s pretty difficult” (R14) to successfully avoid processed food options. Others accepted this as part of the I Want It Now Generation. For instance, R3 said students “get a can of soda pop because you know you’re gonna sit there for 90 minutes in a class and you gotta stay awake somehow. Like I said, that’s been that change in generations.”

Participants viewed younger generation as eating *a lot* of junk food, including soda that had *destroyed* their teeth. R19 said that “kids right now are into junk food and they’re not taking care of themselves.” R1 said youth are “going to the gas station, buying junk food . . . kids can get their hands on that pretty easy.” This had brought into question the role of corporate influence, as R11 explained, “I think the food industry is putting something in our foods to make us want to eat it again . . . just like an addict . . . you see people eat the same junk food over and over and over again.” Other respondents agreed *they addict you*, especially with sugar, and that junk food even stimulated additional addictive behaviors such as drug or alcohol abuse. For instance, R6 said, “It would be easier for me to quit smoking than to walk away from Dr. Pepper.” Similarly, R8 stated that growing up on junk food created dependency on the corporations that produced them “until you’re at the point where you’re so addicted that it’s almost impossible to quit.”

Respondents viewed processed foods to be easier to access. For instance, R10 said, “These days you can open a box, you can go through the drive-thru, and it’s so convenient that

we don't even stop to ask the questions anymore." However, while "it makes life easier," R5 suggested "it hasn't done our people a lot of good because there's so much in food now, preservatives, a lot of junk food. So I think a lot of that has affected people." Other respondents referred to junk food as *garbage*, "a treat to get unhealthy and fat" (R11), resulting in "going one way: down" (R4), and simply "not worth it" (R8).

4.5.6 Associated with Urban Influences

Respondents mentioned that moving to the city resulted in less participation in hunting and gathering, loss of "rural preference" (the legal right of rural Alaskans to harvest traditional foods), and that they traveled longer distances and paid more money to leave the city for subsistence activities. Some respondents still obtained traditional foods and brought them back to the city or had relatives who mailed it to them, but overall, urban residence was associated with more market foods and fewer traditional foods. Many reported that they still preferred to have a more traditional diet while living in the city, but that subsistence foods were harder to obtain and thus their consumption was limited. However, they perceived that lack of access was not the reason some children and teenagers preferred Western diets. Some respondents said it depends on the generation as to *which prefers wild game food over going to the grocery store*.

Participants identified urban residence as having *an effect on a person's diet* due to perceptions of urban life that involved employment, traffic, deadlines, stress, and more options for fast food. Even rural relatives would *junk out* when visiting the city. Respondents perceived less access to traditional foods in urban settings and said that many urban Natives *missed out on learning traditional knowledge*. For instance, R13 stated, "We're more sedentary . . . not

everyone is as subsistence-oriented. Some of that's being in town. Some of it's not having access to it. Some of it's just not caring anymore. The generations that don't necessarily know where it came from and what it's about."

Most respondents agreed that village residents ate more traditional foods, but that city residents lost *a lot of culture by not participating in subsistence activities*. As R8 described, "I feel like I'm more urban Native than anything, but basically, my family just stuck towards what's cheapest and easiest . . . Because that went the way it did, the culture was kind of killed in my family . . . They've gotten used to our in-town creature-comforts," which were associated with alcohol abuse and other unhealthy behavior.

Respondents stated that city residence made it *easy to go to the grocery store to get what you need* but that urban residence also meant *you're forced to buy your food . . . whether it's good for me or not*. With junk food so easy for youth to obtain in the city, parents perceived that urban residence made it *harder to watch out for kids*, particularly when parents worked in wage employment.

4.5.7 Associated with Fast Food Restaurants

Perceptions of market food or Western food nearly always involved reference to fast food, whether drive-thru or delivery. Participants noted fast food is *convenient* when *you're on the go* and there were *many to choose from*. Many respondents reported they *eat out more when we're busy*, and "sometimes you have no time to cook and that's where you make the mistake" (R4) and *eat out more than we should* because *it's easier to go to McDonald's than go hunting for moose*.

Although participants associated *going out to eat* with familial or social connections, many had the perception that *it's not healthy for me* or that *I don't feel so good* after they ate fast food. Others reported, "After eating out, we just feel yuck from all the processed food" (R13) or "If you eat a lot of fast foods, you're not going to be very active" (R15). One mother stated, "When we go out to eat at McDonald's or Burger King, we're kind of down and out, and lazy and lounging around, and we don't feel well. We just stay home and watch TV because we feel sick. So I think it has a big impact on our health" (R9).

Respondents noted *you can just call and get food delivered*, and today most people do eat a variety of fast food. Although some reported fast food restaurants that offered healthier options for a higher price, others were concerned about the origin and quality of fast food. For instance, R10 explained, "You go through the drive-thru and find out . . . it's made to look like meat, but it's not all meat. So some of that scares me sometimes. Like, I don't think that I'm really eating bread when I eat McDonald's hamburgers. I don't know what it is because it doesn't mold, so it scares me." Some respondents were less concerned about their personal use of fast food and more concerned for their children and grandchildren. For example, a grandfather noted that youth today "don't know much about their Inuit traditional world. They thrive on Xbox and restaurant foods. Easy to order. And they're spoiled that way. So we've gone through a shift in food sources . . . you don't move, food gets delivered . . . So today, people have a different sense of food security" (R5). Overall, respondents agreed that eating healthy means *not eating out as much*.

4.5.8 Associated with Grocery Stores

Respondents universally associated market foods stores, whether urban or rural.

Respondents mentioned the variety of food in today's grocery stores, but warned that *we get used to the abundance*. Although *it's easier to just go to the store*, it contains *food that's not good for us*, and they expressed ethical concerns related to corporate profit and dependency.

For instance, R14 explained that food companies are not looking out for the nutrition and health of the consumer, rather "they're looking for how much can we make for really cheap and then sell it" and "nobody thinks about what is actually in it." Additionally, participants expressed the perception that *this new generation is totally dependent on store-bought food*.

However, respondents had different perceptions about the rural or village stores, said to be about the size of a gas station. R13 explained, "Families that don't have people to hunt for them . . . are relying on government assistance, are having to shop there and eat that stuff. The kids end up preferring that because that's what they get used to . . . it's difficult to get anything fresh . . . it's really expensive." R4 declared "You can't depend on the store . . . I tried it . . . Trying to live off the store ain't gonna work." Having found the village store difficult to *live off of*, some respondents said they moved from rural communities to hub communities where the grocery store was available; some said that working in the wage economy often meant they *had to depend on a lot of things from the grocery store*. However, respondents said nowadays it was less important what was available in the village store because *you only shop there when you absolutely have to* because "You can call Fred's. You can call Sam's Club . . . get it shipped" (R8).

One of the primary perceptions involved the exclusion of traditional foods in the market place. As R5 explained, “You have all the modern products of a city, in the village stores, because Native foods are not allowed to be sold in the stores. This is where we have a significant problem in maintaining healthy food and maintaining healthy food behaviors.” Many respondents noted the absence of subsistence foods in stores as a factor that excluded them from potential income and created dependency on industrial market foods, both of which were viewed as harmful to community well-being.

Although rural residents used fewer market foods, many Natives still supplement their diet *with things you get from the store*. Regardless of market foods that were perceived as less healthy, it was clear that *people still need it*. However, despite the influence of market foods, respondents still considered it important to teach hunting and gathering. “It’s important to eat the foods where you’re at, in your place, because the land and the sea is your store” (R15).

4.5.9 Associated with Chronic Disease

All respondents discussed health consequences related to market foods. Many said they believe consumption of overly processed foods contributes to increased risk factors for cancer, obesity, high blood pressure, and diabetes. A R5 explained, “We see that Western food has been very unhealthy for many Inuit because it’s creating a lot of diabetic and obesity conditions, where we never had any before . . . Being introduced to a modern world was very amazing . . . But we didn’t realize they would have such an impact on our health.” Some respondents said that Native people *probably never worried about* allergies, tooth decay, being overweight, or getting enough nutrients, because they ate subsistence foods.

Some respondents expressed concerned about the rate of cancer. Perceptions related to cancer were that *there's more cancer than there used to be*, but that it was unknown “if having cancer is directly related to our change in diet, but . . . it makes a difference” (R17). Others believed that cancer *lives on* sugar and that “we eat so much sugar it’s unbelievable” (R4). However, respondents did not view market foods as the only contributors to cancer. They also mentioned contamination of plants and animals due to military or industrial pollutants as possible causes of cancer.

Respondents perceived diabetes as *one of the fastest growing diseases*, not just for Alaska Natives, but *all cultures are suffering from diabetes now*. Most respondents said there were *a lot of diabetic problems because of all that junk food*, particularly soda. Becoming diabetic meant *having to live on pills*. Although “a lot of Native people have diabetes,” today “it’s not surprising anymore . . . it’s expected” (R14).

Participants mentioned obesity most frequently regarding health consequences of the diet transition. *Significant weight gain* and obesity were mentioned as a *big change*, not just for Alaska, but worldwide. Many respondents said they viewed obesity as causing *a lot of problems for people* and having a significant effect on both individual and community well-being. Obesity was mentioned as a result of eating *American food, Western food, or Fairbanks food*, and caused “a lot of people to lose touch with nature” (R8). Youth, they said, especially had *a lot of weight problems*. Although “we get all of our vitamins and minerals . . . we’re all fat” (R9). Respondents associated obesity with other problems, such as difficulty in exercising and low self-esteem.

4.6 Perceptions of Western Influence

More remote communities in Alaska “became Westernized” later than communities on the road system. One respondent said growing up in a non-Native rural community meant “adapting to the Western way of life was easier for us” because the change had started sooner (R17). However, a grandfather believed that Arctic populations “are being heavily affected – more than people will talk about . . . Nobody is really looking at us – out of sight, out of mind” (R5). Although Outside systems often ignore Native needs and cultures, most respondents agreed that Western influences that impact Native lifestyles were *gonna come no matter what*, so the only option was to *strike your own balance with it where you can*.

While some older respondents had both rural and urban experience, many younger respondents reported little to no first-hand experience with subsistence lifestyles. For example, R10 said, “I didn’t really get the whole rural experience the way some Alaska Natives did, because my community was already kind of corrupted by Western ways of eating and living.” Not having “the time” or “much knowledge” to harvest traditional foods had kept her from “going back” to a subsistence lifestyle (R10). Other respondents noted technological advances influencing Native ways of living. R16 explained, “We’re living in the age of digital technology . . . Kids are on iPads, iPods, iPhones, computers, especially new game consoles . . . Our kids are staying more inside.” Instead of hunting or fishing, “they’re stuck in front of the television watching all the Western marvels,” which include industrially-produced foods (R5).

Most respondents said that, in many ways, *Western society doesn’t make room for traditions in the hunting culture*. Reasons given included: (a) Western society is competitive rather than cooperative, (b) People are *stuck at an 8-5 job* which has weakened their hunting

skills, and (c) Traditional knowledge has not been passed to the next generation because *they're trying to educate them in the Western ways* instead. Many respondents expressed the view that the wage economy and public education are not compatible with the hunting culture and traditional diets. One respondent recalled the way he began eating Western food: "The government made us eat that stuff because we went to a government school" that did not recognize the importance of subsistence foods (R5). The change from subsistence economy to wage economy combined with the change in diet, education, and religion was *a shocking experience* for some. R5 expressed the belief that these influences were *pushed* on Natives, in what was seen as "a very colonial atmosphere" where they had no "right" to continue traditional lifestyles, but rather were "allowed" certain subsistence activities.

4.6.1 Cultural Changes

Many parents reported teaching children Native values, beliefs, and traditions, despite urban residence or Western assaults. Regardless of age, respondents discussed the importance of *respect for food and sharing and the cultural values that sustained Alaska Native people all through the years*. The perception was that the values themselves were unchanged, "just things are done differently" (R17). Many reported being taught their culture, despite Western influences in non-Native communities, and they noted that there were still active efforts to pass traditions to the next generation. However, others perceived their culture in a state of *disaster*, and expressed *anxiety* regarding the cultural changes they saw. This was especially significant regarding the decrease in subsistence because it was accompanied by a *loss of health, loss of roles and traditions*, and in turn *affected your whole culture*. When roles were not practiced or when people lost *the ability to do the things we used to do traditionally*, respondents said that

aspects of the culture *disappeared*. Some described this process as *slowly forgetting* in each generation because they had *such little opportunity* to live, hunt, fish, and prepare food in the traditional ways. Respondents noted that not only has cultural knowledge been lost over time, but some urban Natives were never taught. Some said this loss of culture and personal subsistence affected “people’s pride” and resulted in “lack of judgment” (R8).

Respondents emphasized the importance of culture camp involving subsistence foods for children. An Elder explained, “In my days I had to go get ducks and fish and had to clean before you could eat it. But our younger generation, they wouldn’t have any idea how to clean those unless we have a cultural training” and “set guidelines to help families to get their kids back into reality instead of junk food” (R20). However, some perceived a psychological barrier due to “conflict between the two cultures, not only in food resources” (R5); children are taught that to be a success in America, they cannot speak their Native languages and that *people don’t realize the impact Western education is having on Arctic children*.

4.6.2 Increased Dependency

Many respondents said they had noticed a shift away from self-sufficiency and the results of this shift on Native communities. For example, R1 said, “I think the changes have really affected Native people because self-sufficiency is not what it used to be” and “it’s crazy how much it’s affected our culture and well-being . . . from a culture where we were completely self-sustained” (R8). Indeed, nearly all respondents noted cultural values involving self-sufficiency and the changes caused by Western influences that have created dependency on Outside entities. Some respondents mentioned their food-related dependency on trucks, airplanes, and electricity for freezers. Others claimed the influence of government, money, and

lack of participation in subsistence activities had made people dependent. Over all, respondents viewed Natives as dependent on both the cash economy and the subsistence economy, and *we cannot do without either one*. Some noted that others now depend on hunters to be cash earners, and Natives went from *living on your own* to *trading money instead*. This meant people have a different sense of food security but *it's not very healthy for our communities*. R5 explained that dependency on the “church and welfare state” has led to “continued and rapid deterioration of our culture” and set a “frame of mind” and “behavior patterns of community and food security in the village” because “we’re still operating under a very colonial system.” While some perceived dependency on TV, alcohol, cigarettes, and public assistance, others believed “we have gone from being totally independent and self-reliant to totally dependent on religion and money” (R5).

4.6.3 Christianization

A few respondents said they believed that Western religious influences have destroyed Native culture and led to abandonment of personal responsibility to community well-being. For instance, R5 said,

Religion has been the most destructive experience I have seen of our language and culture . . . They're not realizing what they're doing; they're undermining their own social fabric, in the name of the Lord. So I see a very dangerous thing happening in our communities. “Don't smoke. Don't dance. Don't speak your Native language. Just praise the Lord. Leave everything to God. Money is evil.” And here we are dealing with one of the poorest societies in America! And this is going on? Instead of looking at how to improve the health of the people, I see them being preyed upon through use of Western

society and its religious beliefs . . . This is the direction we are currently going. And it is not a healthy direction to go. It's like the people have given up. So it does affect mental stability. Religion, government, and money – which boat do you want to rock? But the people don't know how to deal with it. They can't see beyond their own needs - or they don't want to. "As long as I get mine, to heck with the rest of the community" type-of-behavior is setting in. Whereas "if I do this, it's going to affect my community this way; maybe I better not." So, I don't see any clarity of thinking. But I do see it among the Elders, but not the younger generation.

In other words, instead of the community's needs being considered, Western influence encouraged people to care only about their own needs. This was especially noticed in youth. Some respondents said they believed this focus on the individual led to increased substance abuse. R5 expressed concern that Christian, Evangelical, or other Western religious influences were more focused on "soul-saving" than on "concern for the health and behaviors of the people."

4.6.4 Money-Driven

Some respondents associated Western influence with big industry designed for profits. R4 stated, "I know for a fact that the food we eat today is based on profit. Somebody's getting rich, and other people are paying the consequences." Some expressed the belief that *it's a capitalist world out there now and corporations are interested in making money*. As R5 explained, this meant Natives "are required to buy certain types of food that are supposed to be healthy for you. But for Inuit, because of the thousands of years of cultural adaptation" of eating subsistence diets, "we're not used to" Western foods and their health consequences.

Some expressed the view that when chips and soda *sells the best*, there seems little financial support for traditional foods. As one mother explained, “When you have bills to pay,” it is difficult to “spend all that money to get out of the city and go gather” (R12). This was especially devastating when families returned home unsuccessful or empty handed. As a father summarized, “Having to live in a cash economy, having to pay for a lot of things, that really does impact the way that we get out and practice our gathering our Native Foods” (R18).

While some respondents reported concerns about Natives living on *free money* from the government, others expressed concerns that Natives who lack jobs cannot afford to buy healthy foods. Neither free money nor jobs offered Native people the means to return to subsistence lifestyles, because respondents viewed both as supporting store-bought diets. Several respondents expressed the perception regarding market food systems that *it’s all about making money*. This focus not only conflicted with Native culture, but also brought into question the quality, nutrition, and safety of market foods for Arctic peoples. Respondents questioned where food came from, how it was made, and what chemicals or additives hide inside industrially-produced products that put people *at risk* because labels were inadequate explanations. Consumers bear the burden to research: “See, you have to be careful. Not them. They just wanna make money” (R1).

Western influences, such as the need for cash, led Native people to seek employment, respondents noted. However, employment hindered Natives in pursuing culturally-significant lifestyles. Rather, employment often meant moving into the city, eating Western foods, and limiting the time and knowledge needed for hunting and fishing. Many respondents mentioned problematic features of hunts scheduled around jobs. Employment could not be counted on to

provide the means of affording needed equipment, nor could it provide time off during specific time periods designated as hunting season. At best, some could pay a hunter with the necessary equipment, time, and knowledge to return with subsistence foods for the payer. However, such solutions still left some Natives without their traditional foods, which ran contrary to Native culture in which everyone was provided for.

4.7 Perceptions of Concern and Importance

Most respondents expressed concerned about food security, the health of communities, and being able to afford healthy foods. They noted concern that weight gain, obesity, and diabetes affected people's ability to actively participate in subsistence activities which also affected community well-being. Respondents worried that *kids aren't eating enough subsistence foods* or participating in enough subsistence activities. They noted concern that school systems regarded standardized testing of higher priority than children's health and that large quantities of junk food were destroying the health of children. Some worried that children would not learn to eat traditional foods because they were used to a *quick fix*. Because children did not know how to hunt and fish, the lack of survival education left future generations unprepared when "something goes awry" and "they have no food;" in the near future "we're gonna have a food crisis if we don't change our ways" (R8). As the population increases, people tend to *go toward what's easier*, and this *mentality has severely affected the Native population*. Several expressed concern that *what's easiest and cheapest* was unhealthy processed foods and that caused disconnection with nature. Some said it was *devastating for the population* that many people no longer seemed to feel gratitude and respect once shown to animals and their environment.

Many expressed sadness concerning the loss of traditional ways of eating because there *isn't time, interest, or knowledge available*. Some said it was *terrible* that they could not go hunting because *they're stuck at an 8-5 job*. Western influences and “the systems that are being introduced are not healthy for the environment people are living in. It's adding to their depravity,” commented R5. Indeed, many expressed sadness about the loss of traditional roles, especially men as hunters, and that people were not learning how to hunt and fish. One respondent said it was “really depressing to say” that she had “more white friends who are into hunting . . . than family members” (R8). Indeed, another respondent said her community experienced “impact” from so many outside hunters “coming into our area” (R11). In some cases, the rivers were *fished out*, but the fish in stores was *outrageously expensive*. Respondents said they were saddened that some people do not have *basic necessities* because food prices *are outrageous* and that the current food system is *all about money*.

Respondents indicated that living a subsistence lifestyle, especially in rural communities, was important because people *depend on* traditional foods. They perceived having subsistence foods available to communities to be necessary because *our bodies process the food better from the local areas*. This also meant economically being able to hunt, feed your family, and share with the community. They said they considered Native foods critical for maintaining healthy food behaviors that were culturally significant. This connection was important to *instill the values* and teach *good living and good health*. Respondents noted that children especially needed supervision, education in what is healthy, and how to *take care of themselves and stay healthy*.

Many respondents noted that *there's a real spiritual component to going out and harvesting food from the land* and that hunting, fishing, and berry picking provided that connection to the land and sea. They also noted that it is important to connect to cultural heritage and be good stewards of the land *so we can always have that resource*.

4.8 Perceptions of Needs, Changes, and Improvements

Given current conditions, respondents offered a wide variety of suggested improvements that they perceived as needed changes. Some said that organic and healthier market choices should be more available, but most said traditional subsistence foods also needed to be supported by making cultural knowledge and the means to acquire Native foods more available to people. The majority of respondents recommended improvements related to regulations, community involvement, education, and industry.

4.8.1 Regulations

While some respondents noted that both hunters and regulators needed to be *respectful* of climate change, most expressed a need for policy makers to be more educated about *what it is for people to go out and hunt* and to *be sensitive to traditional uses*. Others advocated for removal of political agendas that limit access to traditional foods: "People in the rural areas should have the right to have a subsistence lifestyle . . . The government should not be involved in any of it," R12 declared. Several respondents said there should be a reinstatement of aboriginal rights to hunt and fish and that even urban Natives should have hunting and fishing rights.

Others suggested a system of co-management between tribes and government so that Natives can manage game on their properties and protect wildlife and land from Outside hunters *to ensure that our life continues*. This would also help encourage local production enabling Natives to be more self-sufficient and using *the land as your opportunity to thrive and live*. R11 noted that Native people used the land in a way that was truly sustainable and “the land has provided for people. That’s what we need to work towards . . . the goal we need to have so we can always have that resource.” Respondents generally expressed the perception that the current system is too complicated and that it is too difficult to keep up with and understand all the regulations. Therefore, an overhaul of the Department of Fish & Game was recommended, in addition to making regulations easier to read. Any regulations should simply *allow subsistence lifestyles back into people’s lives*.

One respondent suggested we “look at how regulatory agencies and international laws are affecting our hunting society” and promote “more consumption of traditional foods. And the means to acquire it,” R5 noted. He said policies should incorporate traditional foods into everyday life, such as in schools, where subsistence foods are currently not allowed to be served because “it must be commercial products; but commercial products are unhealthy for us;” industrial foods “that our children are being fed, it’s not healthy for them.” In order for Native children to be healthy, the education system needs to “allow the people the natural foods of their environment” (R5). He pointed out that Greenland and Canada have policies that Alaska lacks:

Greenland, for example, the language is blooming, food can be sold at the local market, traditional foods are bought as they’re brought to shore. They have a place to sell their

traditional food. They also have a process to sell foods to the local stores. In Alaska we don't have that. In Canada, you can be served some of these foods at the restaurant. Alaska we don't have any of that.

4.8.2 Community Involvement

Some respondents said that a sense of community must be brought into the picture, that people need to act together, in a more cohesive way that will promote healthy living at the village level. As one Elder stated, "My focus has been to get people to become cohesive, again. Put religion aside. Put politics aside. Put all these other issues aside and look at something, focus on one issue and work toward building community cohesiveness" (R5). In order to begin the healing process, people need to work together and focus as a community. For example, R5 explained his idea to promote community cohesiveness, "Pair up a hunter and an office worker to work together so that they can share in the benefits of the two cultures that we're living: the hunting culture and the workforce culture." He also advocated hiring community people to do community jobs instead of importing workers from outside the community.

4.8.3 Education

All respondents advocated for some form of education, whether it was cultural or nutritional. Some believed that those who still remember the values and traditions should pass them on. For instance, R10 said, "We've lost so much of the knowledge . . . that we should make a deliberate effort to preserve those practices that we need to survive" and "make the knowledge available to anyone who wants it" as well as easy to get and inexpensive. She also advocated recording people cooking, gathering, and preserving food so that it can be

referenced later. Most respondents agreed that more people need to teach nutrition, gardening, and traditional culture to children to *bring back a lot of the education to young people on how healthy of a lifestyle you might have eating your Native foods as opposed to processed foods*. Others suggested camps for children to learn how to cut fish and hunt moose. R8 viewed this as a way for Natives to serve their communities because, “there are a lot of really great Natives out there that do amazing things with their lives” and they should be “recognized more often” by sharing knowledge with younger generations. Likewise, R15 suggested:

We have to remember who we are, and we need to listen to our Elders. And I think learning and being more engaged with the community elders I think will help change, not only for food, but also for dancing, for language, other things who define who you are as part of cultural heritage. So I think that’s important. Limiting internet and other outside influences, TV, movies, things like that, I think also may help. We’re not at a point of no return. We just need to remember that we’re adaptable people. You know, it’s not just Native people who are adaptive; all people are adaptive. So we just need to work together.

While some respondents said that more education and information are needed for Natives to make good food choices, others believed that the education is there but that it might not be agreeable with everybody. Recent improvements noted were the increase in a variety of diets, exercise routines, gym memberships available, documentary films and YouTube videos about food, and online recipes. Additional education needs identified included understanding basic nutrition, serving sizes, how to read labels, how to budget, and how to grow gardens,

especially with youth. Without the education to know how to eat healthy, *it's just so much easier to grab* processed food; basic education is needed to help Natives “think about what we’re doing to ourselves by eating that kind of stuff . . . what it’s doing to our kids, to our bodies” (R13).

Some expressed a need for cross-cultural training, including learning respect for self and others, and that *this is your body that was given to you, so you’re responsible for taking care of it*. Respondents perceived Elders as the best educational resource; older people were not able to do some activities, but they could help others learn and young people could learn from *mistakes our people made* in the recent past. R8 said she believed that through education “we can start loving nature and eating something that we love and we can connect to ourselves; maybe we’ll have a little bit more self-worth;” however, “there’s so many people out there that aren’t willing to be educated; that’s where the issue lies.” Some said they felt that if people lack knowledge about their food, they have also lost control of it. An Elder suggested that people need “role models; people that go out and hunt and fish and trap and show the younger people how to do subsistence activities. They need more people showing the younger people how to harvest wild food” (R2). However, some respondents expressed the view that funding for educational opportunities, job training, and cultural training was routinely withdrawn. Teaching people to choose traditional lifestyles cannot be successful *if there’s a political agenda where people don’t have access to it*. Some respondents felt that without education and access, the Now Generation would be *less likely to pursue our dreams*.

Some said they need more information on cooking, nutrition, and how to cook healthier, recipes. Whereas others said that even people who never learned to cook can still

learn the joy of cooking because it is easy to learn on the internet; some respondents said they even used their smartphone to learn cooking skills. Respondents said that it was *worth it* to take the time to cook and that *everyone loves* a home-cooked meal or potlatch. The majority of respondents supported the idea of growing gardens because gardens are inexpensive, organic, and healthy.

Nearly all respondents described how they had tried to make better choices, were more conscious of what they ate, and explained their efforts to eat healthier. Most changes were related to portion sizes, inclusion of more vegetables and organic foods, less store-bought meat and more subsistence meat, and eating at home instead of eating out. Most perceived better health with reduction of processed foods, fried foods, coffee, fast food, and sugar. Respondents reported that switching back to traditional Native foods improved health and helped them lose weight. In general, they associated better health with choosing healthier foods: *You are what you eat*.

4.8.4 Industrial Change

Some respondents said that people need to be mindful of the impacts of oil and shipping industries; better education, prevention, and clean-up of oil spills is needed to ensure that traditional food resources are protected. However, the primary concern involved industrially-produced foods supplied by the global corporate food system. Instead of a handful of companies who own everything, respondents said there should be smaller producers, but more of them. Others said there should be more people looking out for the nutrition and health of consumers, instead of corporations being almost completely free to pursue profits, without concern for consumer health. For instance, R1 said that the FDA “isn’t doing a good enough

job” because we find out “after the fact,” when the food has already been “out there” for consumers to buy; “there’s just so much stuff in it” that we “don’t know.” Many respondents suggested that *the whole food industry just really needs an overhaul*. Several respondents also suggested that poor people should have healthy food instead of being relegated to the cheap junk food, especially children. They expressed ideas suggesting that the whole country needs to *look at what’s going in our food and see the bigger picture*. As R8 stated, “We need to start thinking differently as a society;” healthier living must become a necessity “in everybody’s point of view” to avoid continued “corrupting” of ourselves and “everything around us.” Corporations will only be forced to change if people “come together . . . before it’s too late” (R8).

4.9 Resistance to Nutritional Colonialism: Framework for Local Change

Many Native peoples have experienced rapid socio-cultural changes resulting in a transition away from subsistence diets. Traditional foods have been replaced by Western diets at a rate that physiological adaptation cannot adequately respond. Given the speed of the nutritional transition, sufficient adjustments have not been entirely possible. Physiologically, human bodies cannot evolutionarily adjust to a drastic diet and lifestyle change in just a few generations. The changes Alaska Natives have experienced correlate with increased incidences of Western illnesses (diabetes, heart disease, stroke, cancer, obesity) thought to be almost non-existent in Native populations prior to the introduction of Western foods and lifestyles. Because Indigenous foods have cultural significance, the impact of nutritional transitions has also been seen in mental health and social health. Therefore, comprehensive culturally-appropriate interventions are needed to improve health outcomes.

A social justice perspective suggests Indigenous peoples should avoid industrially-produced profit-motivated food products, and food policies need to account for Indigenous people's human rights to enjoy their culture and traditional foods which could help counteract dependency and chronic diseases in their communities. Health interventions for Alaska Natives should be place-based and emphasize traditional diets, especially marine-based foods, due to their nutritional superiority and cultural significance. Subsistence activities also provide a combination of physical activity and relationship building required for well-being. Identity and sense of place are essential to mental health, meaning intervention programs must recognize the cultural significance of subsistence activities. In addition to supporting subsistence diets, providing culturally-appropriate community-based nutrition education will help Alaska Natives make better market food choices when subsistence foods are unavailable. Most importantly, too many Alaska Native groups are cut off from their traditional subsistence lands and waters either by physical barriers caused by resource extraction or climate change, or political and legal regulations. It makes little sense to emphasize the importance of subsistence diets or lifestyles when access to them is unavailable.

However, community food sovereignty threatens corporate profit, power, and control. Given the influence of corporate interests on policymakers, government policies cannot be expected to support food sovereignty. Food corporations have many more lobbyists, attorneys, and much more political influence than a small community. When considering ethical, health, and environmental concerns, governments side with corporations rather than communities. Therefore, changes at the community level must originate locally. Communities must regain their dignity by refusing to accept what corporations tell them they must want, what they must

eat, how they must live, how they must work. Therefore, emphasis should be on local self-reliance and the right to healthy, safe, and culturally appropriate foods that are available, accessible, and shared. Reducing reliance on the global food system is essential for community health. Because cultural health is considered a product of physical health, mental health, and social health, some traditional cultures could be considered unhealthy or at least struggling. Therefore, a return to more subsistence-based lifestyles and diets is recommended for all areas of individual and community health.

Chapter 5 : General Conclusions

5.1 Summary of Findings

Using the grounded theory method, the data produced by my respondents gave rise to the concept of nutritional colonialism which refers to the global corporate industrial food system. Nutritional colonialism is characterized by (a) negation of subsistence lifestyles, (b) cultural suppression and marginalization, (c) denial of control over price, availability, accessibility, quality, and appropriateness, (d) lack of food sovereignty, (e) promotes dependency, (f) promotes sedentary lifestyles, (g) requirement of cash, (h) profit-focused/profit-based, (i) negation of any dominant sense of responsibility, (j) environmental damage, and (k) increased chronic disease rates. Comparison suggests that these elements of nutritional colonialism are largely incompatible with Alaska Native cultural elements involving (a) reciprocity, (b) sharing, (c) cooperation, (d) self-sufficiency, (e) respect, (f) gratitude, and (g) sustainability. The hope is in the resistance to nutritional colonialism. For instance, respondents continue sharing traditional foods regardless of current policies that inhibit subsistence food acquisition. Although Native foods are not acquired and shared as much as respondents would prefer, their significance continues to represent legitimate reasons for resistance to nutritional colonialism.

My research showed distinct differences between respondents' perceptions of traditional Foods and market Foods. Respondents perceived traditional foods as healthier, culturally significant, emotionally and socially significant, spiritually significant, shared, respected and valued, but they expressed concerns regarding the changes. In comparison, respondents perceived market foods as less healthy, tied to money, tied to urban influences, having less value, associated with junk food, fast food, grocery stores, and chronic diseases.

Respondents had less knowledge about origin and content of market foods, which made some feel uneasy. Respondents' perceptions of Western influences primarily involved the cultural changes they noticed, the increased dependency it fostered, the Christianization it brought, and the focus on money it promoted. Respondents voiced concern about what was important to them regarding food, health, and community well-being, and what must change or improve. Most of their suggestions centered on local regulation reform, increased community involvement, education, and industrial changes. I concluded that respondents' perceptions validate the concerns in the literature regarding corporate and capitalist models that negate Indigenous lifeways. I also concluded that because government and corporate interests often align, changes at the community level must originate locally, and must emphasize self-reliance and access to culturally-significant subsistence sources. Respondents gave examples of their own efforts to improve their own health and well-being, such as incorporating more traditional foods and carefully selected market foods in their diets, promoting such things as "Culture Camp," continuing to share subsistence foods, getting involved in tribal decision-making, mutually-beneficial "pairing" of cultures, and finding one's own balance.

5.2 Reflections

Based on analysis of both the literature and the data from this project, I argue that Alaska's Indigenous peoples have experienced transition that has affected both diet and health. Respondents noted that they experienced and perceived this change individually and collectively, that it continues to be experienced today, and that they expect the change will continue in the future. The data suggests there is a need for consideration of Native perceptions when looking at health and diet related issues, policies, or changes.

My research has raised additional questions about the meanings of health and well-being from an Indigenous point of view. I was most interested in the fact that research participants raised topics and concepts that seemed to be unrelated to the interview questions. This implies culturally-specific meanings and perceptions about health and well-being that may not have occurred to Outsiders. When researchers receive answers that seem unrelated to the questions they ask, this suggests they should delve more deeply to achieve better understanding of the complex topics at hand. Rich data is one of the benefits of the open-ended interview methods used in qualitative research.

5.3 Contributions

My research aims were to help identify social patterns about changes in the food that individuals and communities eat and possible effects the changes have on all aspects of health; to help document how Alaska Native individuals and communities are adaptive and resilient; and to honor, acknowledge, and highlight the personal perspectives and lived experiences of respondents and their views regarding food, health, and community well-being. I believe all three research aims were achieved. Not only has my research documented Alaska Native perceptions, but it also gave rise to the concept of nutritional colonialism. I have provided evidence from both the data and the literature that support the existence of nutritional colonialism and its influence on Indigenous lifeways. The concept nutritional colonialism is now better defined and documented. More importantly, however, is that resistance to nutritional colonialism is also documented. This research contributes to the social science discipline, to the Alaska Native culture, and to Alaska's community well-being.

5.4 Implications

Much needed policy changes must consider Indigenous perceptions (indeed, most policies have been made without considering Native perceptions). My research has potential policy implications related to hunting and fishing regulations, nutritional programs in schools, healthcare delivery, community programs, and government programs. The data could also be used to support policy and funding to promote self-sufficiency (such as gardening), subsistence activities (such as hunting, fishing, gathering, processing), and education (such as cooking or nutrition classes). My research could inform government programs (such as the Supplemental Nutrition Assistance Program), state-specific decisions (such as those responding to climate change), and could help teach medical providers about Indigenous views so they can offer more appropriate healthcare.

Besides the concept of nutritional colonialism, another perspective found in the data that emerged using the grounded theory method was the importance of connections. The underpinning of my research indicates undeniable connections between traditional food sources, community, culture, spirit, place, and all aspects of health. Every respondent talked about those connections. Whereas Western culture tends to address issues separately, my respondents conceived of them holistically. To use this knowledge in a health communication conversation, I advocate for (a) Awareness: many non-Natives are simply unaware of Native perspectives and views; because they are not from an Indigenous culture, they do not recognize Native ways of knowing; (b) Nutrition education: Natives and non-Natives alike are generally undereducated in the nutritional sciences and many respondents emphasized the need to be more knowledgeable in this area; (c) Promotion of subsistence diets and subsistence culture: as

a species we have moved away from the hunter gatherer methods, but they offer much that is essential, valid, legitimate, and valuable for human health and well-being. Although Westerners do not see subsistence as part of their everyday experience, still holds value, cultural knowledge, power, and significance to Indigenous peoples whether they participate or not. Because food is connected to everything related to wellness, recognition of the value and meaning of traditional subsistence culture is essential to improved health and well-being among Alaska Native individuals and communities.

5.5 Limitations

My research is not generalizable due to snowball sampling and the relatively small number of participants in the study. While this study is specific to Alaska, it does not statistically represent the Alaska Native population, nor does it include representation of every Alaska Native tribe. However, the quality of the data suggests important reasons to consider Indigenous perceptions for the insight they provide regarding food-related aspects of health and well-being. The data suggests significant similarities in relation to the views of other Indigenous peoples described in Chapter 2.

Because my respondents were self-selected, rather than randomly selected, it is possible that they may be more concerned about food and health issues than the average person. However, they emphasized that they are not the only ones who have these perceptions, and they cited many friends and relatives who share their views. This suggests that there is a greater community that believes and perceives the findings indicated by my research.

5.6 Directions for Future Work

Now that I have defined and elaborated the concept of nutritional colonialism, this work can be expanded. Future direction for studies could include higher numbers of interviews in multiple communities that would better represent the cultural diversity of the many Alaska Native tribes. This research could be used to inform community, state, and federal policies to address the unique needs of Alaska's Indigenous peoples. In addition, there is inherent value in documenting Native perceptions, beliefs, and experiences. Their perspectives testify to strength, resiliency, and how Native cultures have struggled to adapt and survived in the face of nutritional colonialism.

References

- Acton, K. B., Nilka, R., Moore, K., Querec, L., Geiss, L., Engelgau, M. (2002). Trends in diabetes prevalence among American Indian and Alaska Native children, adolescents, and young adults. *American Journal of Public Health*, 92(9): p. 1485-1490.
- Adler, A. I., Boyko, E. J., Schraer, C. D., & Murphy, N. J. (1994). Lower prevalence of impaired glucose tolerance and diabetes associated with daily seal oil or salmon consumption among Alaska Natives. *Diabetes care*, 17(12), 1498-1501.
- Alder, P. A. & Alder, P. (1998). Observational Techniques. In Denzin, N. K. & Lincoln, Y. S. (Eds.), *Collecting and Interpreting Qualitative Materials* (pp. 79-109). Thousand Oaks, CA: Sage Publications Inc.
- Babbie, E. (2014). *The Basics of Social Research*, 6th Ed. Belmont, CA: Cengage Wadsworth.
- Ballew, C., Hamrick, K. J., Nobmann, E. D., Alaska Traditional Diet Project, Alaska Native Epidemiology Center & Alaska Native Health Board (2004). *Final Report on the Alaska Traditional Diet Survey*. Alaska Native Epidemiology Center.
- Bersamin, A., Luick, B. R., King, I. B., Stern, J. S., & Zidenberg-Cherr, S. (2008). Westernizing diets influence fat intake, red blood cell fatty acid composition, and health in remote Alaskan Native communities in the center for Alaska Native health study. *Journal of American Diet Association*, 108(2), 266-273.
- Bersamin, A., Wolsko, C., Luick, B. R., Boyer, B. B., Lardon, C., Hopkins, S. E., Stern, J. S., & Zidenberg-Cherr, S. (2014). Enculturation, perceived stress, and physical activity: implications for metabolic risk among the Yup'ik – The Center for Alaska Native Health Research Study. *Ethnicity & Health*, 19(3), 255-269.

- Bjerregaard, P., & Jorgensen, M. (2008). Diet, Nutrition, and Physical Activity. In T. Young, & P. Bjerregaard (Eds.), *Health Transitions in Arctic Populations* (pp. 192-204). Toronto, Canada: University of Toronto Press.
- Borre, K. (1991). Seal blood, Inuit blood, and diet: a biocultural model of physiology and cultural identity. *Medical Anthropology Quarterly*, 5(1), 48-62.
- Borre, K. (1994). The healing power of the seal: the meaning of Inuit health practice and belief. *Arctic Anthropology*, 31(1), 1-15.
- Boyer, B. B., Bersamin, A., Hutchinson, S. H., Lardon, C., Luick, B. R., Maylolo, G., & Mohatt, G. V. (2005). Building a community-based participatory research center to investigate obesity and diabetes in Alaska Natives. *International Journal of Circumpolar Health*, 64(4). 281-290.
- Brown, C., Mokuau, N., Ka'opua, L., Kim, B., Higuchi, P., & Braun, K. (2014). Listening to the voices of Native Hawaiian Elders and 'Ohana Caregivers: discussions on aging, health, and care preferences. *Journal of Cross-Cultural Gerontology*, 29(2), 131-151.
- Bryson, A. & McConville, S. (2014). *The Routledge Guide to Interviewing: oral history, social enquiry and investigation*. New York, NY: Routledge.
- Berg, B. L. & Lune, H. (2012). *Qualitative Research Methods for Social Sciences*, 8th Ed. Upper Saddle River, NJ: Pearson Education, Inc.
- Chilisa, B. (2012). *Indigenous Research Methodologies*. Thousand Oaks, CA: SAGE Publications, Inc.
- Czyzewski, K. (2011). Colonialism as a broader social determinant of health. *The International Indigenous Policy Journal*, 2(1), 1-14.

Davidson, M., Bulkow, L. R., & Gellin, B. G. (1993). Cardiac mortality in Alaska's Indigenous and non-Native residents. *International Journal of Epidemiology*, 22(1), 62-71.

DHSS (2002). *Healthy Alaskans 2010: Targets and Strategies for Improved Health*. Alaska Department of Health & Social Services, Division of Public Health. Volume 1.
Retrieved from

http://www.dhss.alaska.gov/dph/Pages/healthy_alaskans/volume-1.aspx

Dombrowski, K. (2001). *Against Culture: Development, Politics, and Religion in Indian Alaska*. Lincoln, NE: University of Nebraska Press.

Dombrowski, K. (2007). Subsistence livelihood, native identity and internal differentiation in Southeast Alaska. *Anthropologica*, 211-229.

Donatuto, J. L., Satterfield, T. A., & Gregory, R. (2011). Poisoning the body to nourish the soul: prioritizing health risks and impacts in a Native American community. *Health, Risk & Society*, 13(2), 103-127.

Emerson, R., Fretz, R., & Shaw, L. (2011). *Writing Ethnographic Fieldnotes*, 2nd Ed. Chicago, IL: The University of Chicago Press.

Engel, G. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), 129-136.

Fialkowski, M. K., Okoror, T. A., & Boushey, C. J. (2012). The relevancy of community-based methods: using diet within Native American and Alaska Native adult populations as an example. *Clinical & Translational Science*, 5(3), 295-300.

Friborg, J., & Hassler, S. (2008). Cancer. In T. Young, & P. Bjerregaard (Eds.), *Health Transitions in Arctic Populations* (pp. 308-333). Toronto, Canada: University of Toronto Press.

- Glaser, B., & Strauss, A. (1967). *The discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine.
- Hibbeln, J. R. (1998). Fish consumption and major depression. *Lancet*, 351(9110), 1213.
- Hill, C. A., Dean, E., & Murphy, J. (Eds.). (2014). *Social Media, Sociality, and Survey Research*. Hoboken, NJ: John Wiley & Sons.
- Jernigan, V. B., Duran, B., Ahn, D., & Winkleby, M. (2010). Changing patterns in health behaviors and risk factors related to cardiovascular disease among American Indians and Alaska Natives. *American Journal of Public Health*, 100(4), 677-683.
- Johnson, J. S., Nobmann, E. D., & Asay, E. (2012). Factors related to fruit, vegetable and traditional food consumption which may affect health among Alaska Native People in Western Alaska. *International Journal of Circumpolar Health*, 71.
- Jordan, P. (2004). Ethnic survival and the Siberian Khanty: on-going transformations in seasonal mobility and traditional culture. *Nomadic Peoples*, 8(1), 17-42.
- Jorgensen, M., & Young, K. (2008). Cardiovascular Diseases, Diabetes, and Obesity. In T. Young, & P. Bjerregaard (Eds.), *Health Transitions in Arctic Populations* (291-307). Toronto, Canada: University of Toronto Press.
- Kawagley, A. O., (2006). *A Yupiaq Worldview: A Pathway to Ecology and Spirit*. Long Grove, IL: Waveland Press, Inc.
- King, M., Smith, A., & Gracey, M. (2009). Indigenous Health part 2: the underlying causes of the health gap. *Lancet*, 374, 76-85.

- Kirmayer, L., Simpson, C., & Cargo, M. (2003). Healing tradition: culture, community and mental health promotion with Canadian aboriginal peoples. *Australasian Psychiatry*, 11(1), 15-23.
- Kochanek, K. D., Murphy, S. L., Minino, A. M., & Hsiang-Ching, K. (2011). Deaths: Final Data for 2009 *National Vital Statistics Reports* (Vol. 60, pp. 1-116): Division of Vital Statistics.
- Kral, M. J., Idlout, L., Minore, J. B., Dyck, R. J., & Kirmayer, L. J. (2011). *Unikkaartuit*: meanings of well-being, unhappiness, health, and community change among Inuit in Nanavut, Canada. *American Journal of Community Psychology*, 48, 426-438.
- Krupnik, I., & Jolly, D. (Eds.). (2002). *The Earth is Faster Now: Indigenous Observations of Arctic Environmental Changes*. Fairbanks, AK: Arctic Research Consortium of the United States.
- Kuhnlein, H. V., & Chan, H. M. (2000). Environment and contaminants in traditional food systems of Northern Indigenous peoples. *Annual Review of Nutrition*, 20, 595-626.
- Kuhnlein, H. V., Receveur, O., Soueida, R., & Egeland, G. M. (2004). Arctic Indigenous peoples experience the nutrition transition with changing dietary patterns and obesity. *Journal of Nutrition*, 134(6), 1447-1453.
- Lardon, C., Soule, S., Kernak, D., & Lupie, H. (2011). Using strategic planning and organizational development principles for health promotion in an Alaska native community. *Journal of Prevention & Intervention in the Community*, 39(1), 65-76.

- Lincoln, Y. S. & Denzin, N. K. (1998). The Fifth Moment. In Denzin, N. K. & Lincoln, Y. S. (Eds.), *The Landscape of Qualitative Research* (pp. 407-429). Thousand Oaks, CA: Sage Publications Inc.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human communication research, 28*(4), 587-604.
- Loring, P. A., & Gerlach, S. C. (2009). Food, culture, and human health in Alaska: an integrative health approach to food security. *Environmental Science & Policy, 12*(4), 466- 478.
- Martin, D., & Yurkovich, E. (2014). "Close-knit" defines a healthy Native America Indian family. *Journal of Family Nursing. 20*(1), 51-72.
- Mitchell, D. C. (2003). *Sold American: The Story of Alaska Natives and Their Land, 1876-1959*. Fairbanks, AK: University of Alaska Press.
- Mohatt, G. V., Plaetke, R., Klejka, J., Luick, B., Lardon, C., Bersamin, A., & Center for Alaska Native Health Research. (2007). The Center for Alaska Native Health Research Study: a community-based participatory research study of obesity and chronic disease-related protective and risk factors. *International Journal of Circumpolar Health, 66*(1), 8-18.
- Mohatt, N. V., Thompson, A. B., Thai, N. D., & Tebes, J. K. (2014). Historical trauma as public narrative: a conceptual review of how history impacts present-day health. *Social Science & Medicine, 106*, 128-136.
- Napoleon, H. (2005). *Yuuyaraq: The Way of the Human Being*. Fairbanks, AK: Alaska Native Knowledge Network.
- Naylor, J. L., Schraer, C. D., Mayer, A. M., Lanier, A. P., Treat, C. A., & Murphy, N. J. (2003).

- Diabetes among Alaska Natives: a review. *International Journal of Circumpolar Health*, 62(4).
- Nelson, R. K. (1983). *Make Prayers to the Raven: A Koyukon View of the Northern Forest*. Chicago, IL: University of Chicago Press.
- Nobmann, E. D., Byers, T., Lanier, A. P., Hankin, J. H., & Jackson, M. Y. (1992). The diet of Alaska Native adults: 1987-1988. *American Journal of Clinical Nutrition*, 55(5), 1024-1032.
- Nobmann, E. D. (1997). Nutritional benefits of subsistence foods. Anchorage, AK: University of Alaska Anchorage, Institute of Social and Economic Research.
- Oleksa, M. (2005). *Another Culture/Another World*. Juneau, AK: Association of Alaska School Boards.
- Papanikolaou, Y., Brooks, J., Reider, C., & Fulgoni, V. L. (2014). U.S. adults are not meeting recommended levels for fish and omega-3 fatty acid intake: results of an analysis using observational data from NHANES 2003-2008. *Nutrition Journal*, 13(31).
- Pars, T., Osler, M., & Bjerregaard, P. (2001). Contemporary use of traditional and imported food among Greenlandic Inuit. *Arctic*, 54(1), 22-31.
- Patel, R. (2012). *Stuffed and Starved: The Hidden Battle for the World Food System* (2nd ed.). Brooklyn, NY: Melville House Publishing.
- Pilon, G., Ruzzin, J., Rioux, L., Lavigne, C., White, P. J., Frøyland, L., & Marette, A. (2011). Differential effects of various fish proteins in altering body weight, adiposity, inflammatory status, and insulin sensitivity in high-fat-fed rats. *Metabolism*, 60(8), 1122-1130.

- Redwood, D.G., Lanier, A. P., Johnston, J. M., Asay, E. D., & Slattery, M. L. (2010). Chronic disease risk factors among Alaska Native and American Indian People, Alaska, 2004-2006. *Preventing Chronic Disease*, 7(4).
- Richardson, A. J. (2003). The importance of omega-3 fatty acids for behaviour, cognition and mood. *Food & Nutrition Research*, 47(2), 92-98.
- Ritchie, J. & Lewis, J. (Eds.). (2003). *Qualitative Research Practice: a guide for social science students and researchers*. Thousand Oaks, CA: Sage Publications, Inc.
- Richmond, C. A., & Ross, N. A. (2008). Social support, material circumstance and health behavior: influences on health in First Nations and Inuit communities of Canada. *Social Science & Medicine*, 67, 1423-1433.
- Rolfe, R.E. (2006). Social cohesion and community resilience: a multi-disciplinary review of literature for rural health research. In: Social Cohesion and Community Resiliency Working Group, Atlantic Canada based Rural Centre, Halifax.
- Ruthig, J. C., Hanson, B. L., Ludtke, R. L., & McDonald, L. R. (2009). Perceived barriers to health care and health behaviors: implications for Native American elders' self-rated health. *Psychology, Health & Medicine*, 14(2), 190-200.
- Saleebey, D. (2000). Power in the people: strengths and hope. *Advances in Social Work*, 1(2), 127-136.
- Samson, C., & Pretty, J. (2006). Environmental and health benefits of hunting lifestyles and diets for the Innu of Labrador. *Food Policy*, 31, 528-553.
- Santrock, J. W. (2007). *A Topical Approach to Human Life-span Development* (2 ed.). St. Louis, MO: McGraw-Hill.

- Schlosser, E. (2002). *Fast Food Nation: the dark side of the all-American meal*. New York, NY: Houghton Mifflin Company.
- Schwalbe, M. (2008). *Rigging the Game: How Inequality is Reproduced in Everyday Life*. New York, NY: Oxford University Press.
- Searles, E. (2002). Food and the making of modern Inuit identities. *Food & Foodways*, 10(1), 55-78.
- Silverman, D. (2011). *Interpreting Qualitative Data, 4th Ed*. Thousand Oaks, CA: Sage Publications, Inc.
- Smith, L. T. (1999). *Decolonizing Methodologies*. New York, NY: Zen Books Ltd.
- Statistics, National Center for Health. (2011). *Health, United States, 2010: With Special Feature on Death and Dying*. Hyattsville, M.D.
- Stewart, T. J., Swift, J. K., Freitas-Murrell, B. N., & Whipple, J. L. (2014). Preferences for mental health treatment options among Alaska Native college students. *American Indian and Alaska Native Mental Health Research*, 20(3), 59-78.
- Sumner, J. (2011). Serving social justice: the role of the commons in sustainable food systems. *Studies in Social Justice*, 5(1), 63-75.
- Tanskanen, A., Hibbeln, J. R., Hintikka, J., Haatainen, K., Honkalampi, K., & Viinamaki, H. (2001). Fish consumption, depression, and suicidality in a general population. *Archives of General Psychiatry*, 58(5), 512-513.
- Vladimirova, V. K. (2011). "We are reindeer people, we come from reindeer." Reindeer herding in representations of the Sami in Russia. *Acta Borealia: A Nordic Journal of Circumpolar Societies*, 28(1), 89-113.

- Walters, K. L., Mohammed, S. A., Evans-Campbell, T., Beltran, R. E., Chae, D. H., & Duran, B. (2011). Bodies don't just tell stories, they tell histories: embodiment of historical trauma among American Indians and Alaska Natives. *Du Bois Review: Social Science Research on Race*, 8(1), 179-189.
- Weaver, H. N. (2012). Urban and Indigenous: the challenges of being a Native American in the city. *Journal of Community Practice*, 20, 470-488.
- Wilcox, A. C., Harper, S. L., Edge, V. L., Landman, K., Houle, K., Ford, J. D., & the Rigolet Inuit Community Government. (2013). The land enriches the soul: on climatic and environmental change, affect, and emotional health and well-being in Rigolet, Nunatsiavut, Canada. *Emotion, Space, and Society*, 6, 14-24.
- Willows, N. D. (2005). Determinants of healthy eating in Aboriginal peoples in Canada: the current state of knowledge and research gaps. *Canadian Journal of Public Health*, 96 Suppl 3, S32-36, S36-41.
- Wilson, S. (2008). *Research Is Ceremony: Indigenous Research Methods*. Winnipeg, Manitoba: Fenwood Publishing.
- Wright, E. O. & Rogers, J. (2011). *American Society: How It Really Works*. New York, NY: W. W. Norton & Company.
- Young, T. & Bjerregaard, P. (Eds.). (2008). *Health Transitions in Arctic Populations*. Toronto, Canada: University of Toronto Press.

Appendix A - Informed Consent Form

Alaska Natives' perceptions of community well-being and dietary health

IRB #545629-1

Date Approved

Introduction of myself and our research project:

I am a Northern Studies graduate student who is interested in food and health in Alaska Native communities. I am a second year student, and I am writing my thesis on this topic.

Description of the Study:

You are being asked to take part in a research study about food. I am interested in what YOU think. I am also interested in what your community thinks. Please read this form carefully. You are invited to ask any questions you may have now or at any time during your participation. If you decide to participate, I will interview you for about 30-60 minutes. If you agree, I would like to record our conversation.

Risks and Benefits of Being in the Study:

If you agreed to be interviewed, there are some benefits to you and your community. One benefit is you will be considered my "co-researcher". Another benefit is that you will be part of a study that could inform future research about your community. There are minimal risks to you. You may feel uncomfortable when being interviewed. If this happens, please tell me right away and I will do whatever is possible to make you feel more comfortable. You can decline to answer any question that makes you uncomfortable. I understand some people feel uncomfortable talking about food and diet. I will work hard to minimize any feelings of discomfort you may experience.

Confidentiality:

- Information about you will be kept confidential.
- Information with your name will not be shared with anyone outside the research team.
- We will not use your real name, and we will code your information with a number. No one will be able to trace your answers to your name.
- As soon as the audio recording is transcribed, the recording will be destroyed. The transcripts will be stored on a computer protected by a password known only to me. Printed transcripts will be stored in a locked cabinet in a locked office.
- Information may be used in reports, presentations, and publications but you will not be personally identified.

Voluntary Nature of the Study:

Your decision to take part in the study is voluntary. You are free to choose whether or not to take part in the study. If you decide to take part in the study you can stop at any time or change your

mind and ask to be removed from the study. If you are a student, whether or not you choose to participate will not affect your grades.

Contacts and Questions:

If you have questions now, feel free to ask me now. If you have questions later, you may contact Melanie Lindholm, mmmlindholm@alaska.edu or my faculty advisor, Dr. Sine Anahita, sine.anahita@alaska.edu or 907-474-6515.

If you have questions or concerns about your rights as a research participant, you can contact the UAF Office of Research Integrity at 474-7800 (Fairbanks area) or 1-866-876-7800 (toll-free outside the Fairbanks area) or uaf-irb@alaska.edu.

Statement of Consent:

I am 18 years old or older. I understand the procedures described above and that my interview will be recorded and transcribed. My questions have been answered to my satisfaction and I agree to participate in this study. I have been provided a copy of this form.

Signature of Participant & Date

Signature of Person Obtaining Consent & Date

Looking for Alaska Native Students to be interviewed about food

**By a graduate student in the
University of Alaska Fairbanks
Northern Studies Program**

If interested, contact
Melanie Lindholm,
NORS Graduate Student
907-888-0044
mmlindholm@alaska.edu
611B Gruening



Participate in a study about Alaska Natives and food

- This project is looking for Alaska Native students (18 years or older) willing to participate in an interview regarding perceptions of food and health.
- There is no cost to participate except the time to complete the interview.
- Interviews will be conducted to accommodate your schedule.

If you have questions or concerns about your rights as a research participant, you can contact the UAF Office of Research Integrity at 474-7800 (Fairbanks area) or 1-866-876-7800 (toll-free outside the Fairbanks area) or uaf-irb@alaska.edu.

Image courtesy of <http://www.designlp.com/art.html>

Appendix C - Interview Questions and Format

Interview Questions:

1. What do you think of when I say the word “food”?
2. When you think about your community, does it matter what kinds of foods are available?
3. Do you have any experience in rural areas of Alaska?
4. What did you eat in the village? Is it different from what you eat in Fairbanks?
5. What do your family members eat? Do you think that’s what they prefer to eat?
6. What types of foods did you eat in 1960? 1980? 2000? Today? (according to respondent’s age)
7. What do you think about the foods you eat now compared to the foods you used to eat?
8. Have you noticed changes in your personal health because of changes in your diet?
9. During your life, what changes have you noticed in Alaska Native diets?
10. Have you noticed changes in subsistence activities? Have the changes influenced your community well-being?
11. What is available in your village store? Are they foods you prefer?
12. Why do you think Native diets have changed?
13. What effects do you think these changes have had?
14. What changes do you think should be made now?
15. Do you think there is a connection between food and physical health?
16. Do you think there is a connection between food and emotional health?

17. Do you think there is a connection between food and spiritual health?

18. Do you think there is a connection between food and social health?

19. Is there anything else about community well-being, food, or health you would like to tell me about that you haven't already?

Demographic information:

1. What is your age?

2. What is your community of origin? Where would you say you are from?

3. What is your tribal affiliation? What Alaska Native group do you identify with?

Referral option:

Do you know anyone else who might also be interested in participating in an interview for this project?

Appendix D - IRB Approval Letter



(907) 474-7800
(907) 474-5444 fax
uaf-irb@alaska.edu
www.uaf.edu/irb

Institutional Review Board

909 N Koyukuk Dr. Suite 212, P.O. Box 757270, Fairbanks, Alaska 99775-7270

March 4, 2014

To: Sine Anahita, PhD
Principal Investigator
From: University of Alaska Fairbanks IRB
Re: [564809-2] Alaska Native Perceptions of Community Well-Being and Dietary Health

Thank you for submitting the Response/Follow-Up referenced below. The submission was handled by Expedited Review under the requirements of 45 CFR 46.110, which identifies the categories of research eligible for expedited review.

Title:	Alaska Native Perceptions of Community Well-Being and Dietary Health
Received:	March 3, 2014
Expedited Category:	7
Action:	APPROVED
Effective Date:	March 4, 2014
Expiration Date:	March 4, 2015

This action is included on the March 5, 2014 IRB Agenda.

No changes may be made to this project without the prior review and approval of the IRB. This includes, but is not limited to, changes in research scope, research tools, consent documents, personnel, or record storage location.

Appendix E - Respondent Interview and Transcript Lengths

Respondent	Interview time	Transcript words
1	1h18m52s	9,342
2	59m34s	7,490
3	35m46s	4,420
4	36m33s	4,905
5	1h37m18s	9,388
6	47m26s	4,906
7	32m41s	3,229
8	1h5m44s	9,895
9	29m13s	4,002
10	39m42s	5,086
11	1h25m1s	6,773
12	53m16s	6,286
13	15m57s	2,293
14	51m42s	8,259
15	37m36s	3,748
16	44m10s	6,798
17	29m45s	3,069
18	28m57s	3,649
19	13m16s	1,651
20	37m17s	3,359
Total:	15h19m46s	108,548
Average:	45m59s	5,427

Appendix F - Respondent Nodes and References

Respondent	Nodes	References
1	54	229
2	43	126
3	35	88
4	45	128
5	51	242
6	34	84
7	25	67
8	43	151
9	38	82
10	41	113
11	46	202
12	37	119
13	34	63
14	33	83
15	32	66
16	29	69
17	31	47
18	30	59
19	17	30
20	26	47
Total:	724	2095
Average:	36	105